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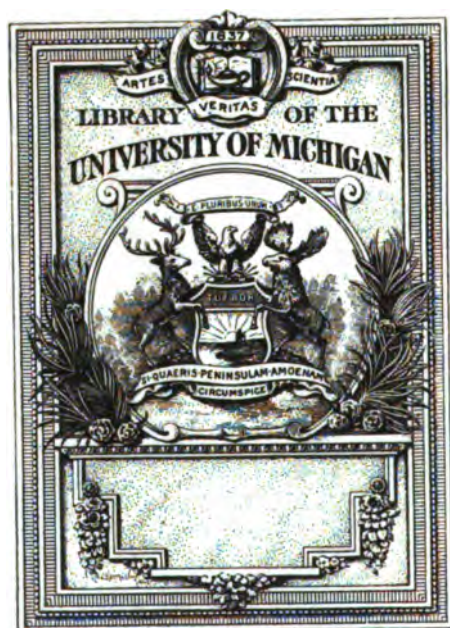
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THE
MERCHANTS' MAGAZINE

AND
COMMERCIAL REVIEW.

EDITED BY
WILLIAM B. DANA.

VOLUME FORTY-SEVENTH,
FROM JUNE TO DECEMBER, INCLUSIVE, 1862.

New York :
WILLIAM B. DANA, PUBLISHER AND PROPRIETOR,
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C O N T R I B U T O R S
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MERCHANTS' MAGAZINE AND COMMERCIAL REVIEW.

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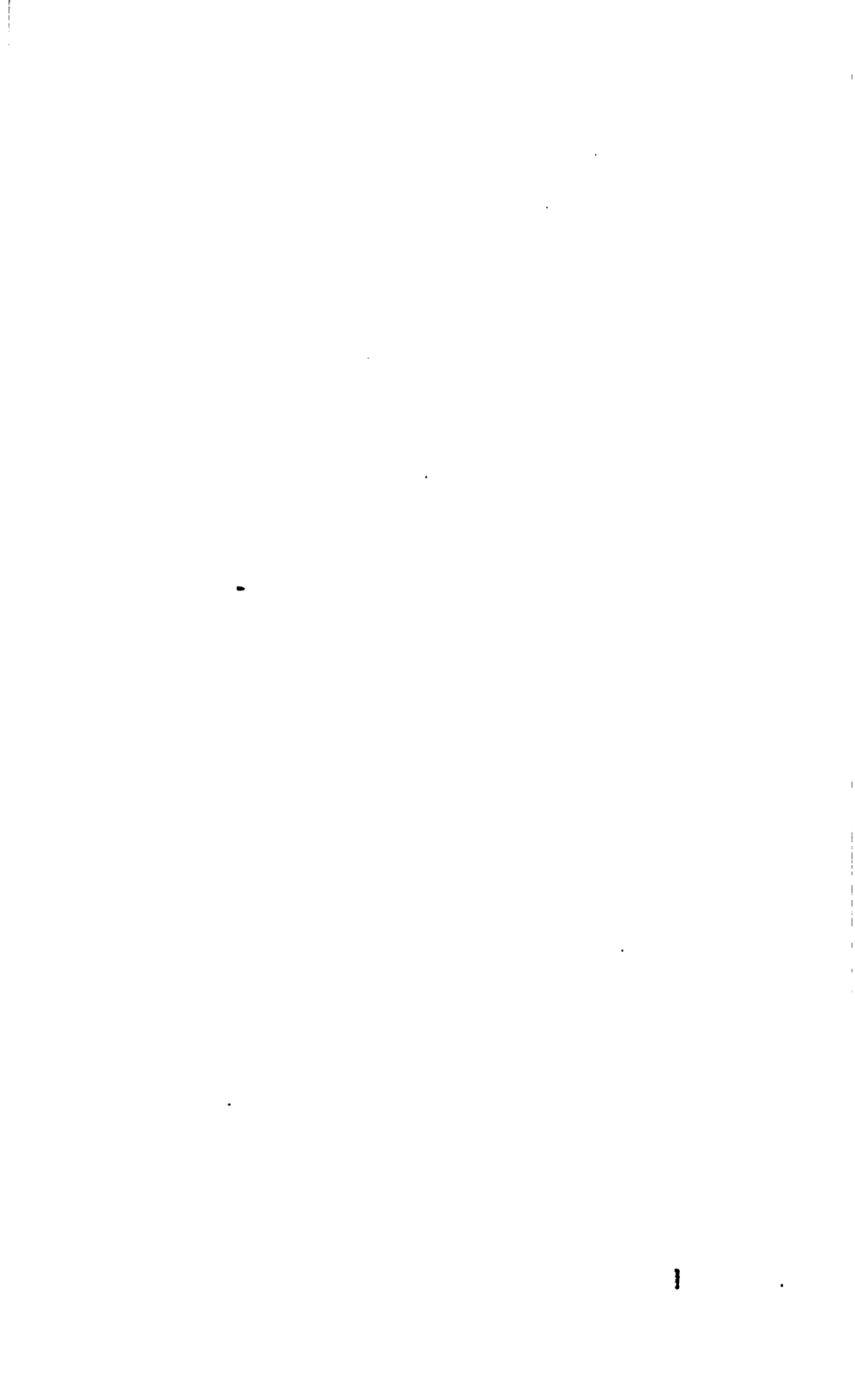
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TO SUBJECTS CONTAINED IN THE

MERCHANTS' MAGAZINE AND COMMERCIAL REVIEW,

VOLUME XLVII.

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THE MERCHANTS' MAGAZINE

AND COMMERCIAL REVIEW.

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JULY, 1862.  
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PETROLEUM, OLD AND NEW.

O. A. W.

PETROLEUM belongs to an extensive family, ancient as the hills, and honorable in history, whose surname is Bitumen. It has mixed and mingled with earthy matters, with fluids and with gases, till there's a fine tribe of half-bloods indeed, and it is hard work to tell who's who. In a pure state, however, they may be confined to four varieties. The most solid, which varies from the hardness of stone to the elasticity of india-rubber, is bitumen proper; the next in density, more plastic and pitchy, is asphaltum; the third, a thick fluid, is Petroleum; the last and most liquid is naphtha. It takes a good many chemical formulas to express the precise component parts of each variety. Scientific people, who know so much more than the rest of us, dote upon whole battalions of initial letters, each with a little fraction tied to its heel; but if they had been out of school ever so many years, and had not studied much but life since, and that in a limited edition, they would be satisfied, as we are, with knowing that the substance in question contains a great amount of carbon, a sprinkling of hydrogen, a breath of oxygen, and sometimes the merest suspicion of nitrogen.

The difference between the most solid and most liquid forms, is so slight, chemically, as to be hardly worth mentioning, the temperature of the air, and the length of time for which they have been exposed to it, changing their consistency very greatly. They are found in widely separated localities all over the world, and are almost invariably associated with springs of sulphurous or salt water, and with jets of carburett hydrogen gas. In some places they ooze slowly through the soil in scanty drops, or exude through fissures in the rocks; in others, they bubble up in quiet springs, or spout out from their subterraneous reservoirs with the vehemence of a fountain. As they spread away from the point of egress they cool and harden, until they frequently become entirely solidified, from which it may be in-

ferred that all the masses of bitumen found upon the surface of the earth, or within its depths, were once in a liquid state.

The very earliest record we have of a bituminous district, is in the account of the Vale of Siddim, now sunk beneath the waves of the Dead Sea, with its four flourishing cities. It is said to have been full of "slime pits," so that when the kings of Sodom and Gomorrah were pursued by the four kings of the East, they fled there and perished. It may be that the doomed cities themselves were built with the asphaltic cement, so much used in those early times, and that this, with the bituminous nature of the soil about them, rendered the whole valley a ready prey to the ravages of the avenging flames: for when the fiat of destruction had gone forth, and "Abram arose and looked toward the land of the plain, the smoke of the country went up as the smoke of a furnace." Volcanic action devastated the fair valley, and sunk it into the earth, and the Dead Sea covered it like a vast shroud.

Modern pilgrims to the Holy Land, are not satisfied like those of old, with bringing back a scollop-shell or a branch of palm; they return with whole coffers of curiosities, conspicuous among which are the peculiar Greek rosaries and ornaments made in the convents at Jerusalem, out of hardened pieces of asphaltum, from the shores of the Dead Sea. The asphaltum is found in profusion upon the barren margin of the sea, or floating in its dense, bitter waters. On the southern shore are chasms and pits filled with slimy, half-fused bitumen, where unwary travelers have been lost. Hardly a vestige of vegetation can be seen upon the blighted soil, and mountains and plains are alike dreary and death-like. It is a wilderness of sand and salt, rock and asphaltum; the desert is all about it, and there is no human habitation near, except the desolate convent of Mar Saba, whose mournful bell tolls a nightly requiem for the souls of four cities.

The era of the first use of bitumen, dates back several hundred years before the record of its existence in the Vale of Siddim. The builders of the Tower of Babel used bricks made of clay, and "slime for mortar." A little below the heap of ruins supposed to be those of the half-built Tower, upon the right bank of the Euphrates, are the celebrated Fountains of Ia. Here the Petroleum has bubbled up, brown and oily, from the time of the flood to the present day, cooling as it leaves the fountain, till it congeals into asphaltum. ALEXANDER, and TRAJAN, and JULIAN, in turn wondered at this marvel of nature. It was from this source, without a doubt, that the builders of Babel gathered their slimy mortar, and the Babylonians made from it an imperishable cement, with which all their amazing works were built. The walls of Babylon were made with it, those mighty walls, which enclosed two hundred and twenty-five square miles of land, and the population of a little planet; they were nearly a hundred feet thick at the base, so broad on the top that eight horses abreast could run there, and as tall as two Niagara Falls. NEBUCHADNEZZAR was the great builder-king of ancient history; his skill designed and carried out the marvelous temple of Belus; he hemmed in the encroaching waters of the Tigris and Euphrates, with dykes of solid masonry; he built a reservoir, one hundred and forty miles in circumference, and made a vast canal broad and deep as a river and five hundred miles long, which stretched from the Euphrates to the Persian Gulf. All these were laid and cemented with the imperishable asphaltum. With this too, he built the royal palace, indulging his kingly fancy with a house six miles in circumference, and inclosed by three walls.

It was an extravagant fancy, even for a king, and the royal husband had hardly satisfied it, when the royal wife took a fancy too. Queen AMYTIS wanted a garden; she was tired of the dull plain of Shinar; her homesick heart went back to Ecbatana, the mountainous home of her childhood, and she longed for something that resembled it, something high and verdurous, a pleasure ground upon a hill. Petted women will have expensive fancies at times. CLEOPATRA's pickle of pearls was an acrid folly, and CATHERINE's ice-palace a frigid absurdity, but the caprice of Queen AMYTIS was only a good impulse carried a little too far. The unperverted heart turns as naturally to a garden, as the heliotrope turns to the sun. Occasionally one finds in a city a stony-hearted wretch calling himself a man, who admires the intricacies of a Belgian pavement, especially at the corners, more than the mosaic of the most radiant parterre. Such a monster should not be suffered to run at large in an unsuspecting community; he should be drowned in a gutter, or hung from a derrick, or sent into quarantine, for he is a foe to civilization, to morality, and to religion. When the work of creation was done, did not the Lord God himself plant a garden and place therein two guileless souls, to delight in its beauty, and to guide its growth? And when through disobedience punishment became necessary, was it not a part of that punishment that the erring ones were sent out of the garden into a land that brought forth thorns and thistles? Queen AMYTIS wanted a garden, and the king said she should have one. It was built within the palace walls. There was never seen such a pleasure ground as this; vast numbers of pillars arched and vaulted, cemented with the indestructible asphaltum, which made whole columns like one stone for strength, sustained terrace after terrace, each higher than the one before it, till the last stood four hundred feet from the ground. Upon these various platforms were planted exquisite oriental shrubs, fragrant flowers, and waving palms; a great pyramid of verdure, which looked at a distance like a symmetrical mountain in the last excellence of culture. Artificial irrigation was a pet science among the ancients, and water for the garden was raised by machinery from the Euphrates four hundred feet below. AMYTIS was content with her mountain garden; people came from distant nations to see them, and even the self-satisfied Greeks, who always thought wisdom would die with them, acknowledged them to be worthy of a place among the wonders of the world. When BELSHAZZAR had succeeded to the kingdom of his grandfather, and was feasting a thousand of his nobles in the very palace that NEBUCHADNEZZAR had built "by the might of his power for the glory of his majesty," while they drank wine and praised the gods of gold and of silver, in the same hour came forth fingers of a man's hand and wrote upon the plaster of the wall of the king's palace. That was the last night of the last medean king. AMYTIS and NEBUCHADNEZZAR are names of the past; the gardens and great works of masonry, with all their admirers, crumbled into common dust centuries since; but still about the ruins of Babylon are found scattered fragments of the ancient bricks, and numberless pieces of the asphaltum, in which they were laid, as untouched by time, as when they were first gathered upon the cool edges of the Fountain of Is.

The Babylonians were not alone in their use of bituminous substances; for the Egyptians, if they employed them less largely, used them more perpetually and more strangely. These Ethiops must have been an extremely eccentric people; square in their features, crooked in their morals, and ut-

terly zig-zag in religion. Their spiritual state was quite obscure; they ordained priests of polywogs, and offered oblations to blue-tailed flies, with serene joy at their own piety. Among many other peculiarities of doctrine, they appear to have had a violent prejudice against allowing dust to return to dust, under the impression that the disembodied spirit, came back to its earthly tenement, after a lapse of years. From this belief, arose the practice of embalming the dead, in which process great quantities of bitumen were used. Not only was every human being that died embalmed, but also all the animals, reptiles, and insects that were considered sacred.

To comprehend in any measure the enormous amount of material required by this universal custom, we must remember the swarming population of Egypt; the average number of persons to the square mile, was greater than the densest population of modern times. Memphis, where six dynasties of kings flourished and declined through a thousand years, was a nation by itself; and Thebes was even greater—its area covered twenty-two miles, its vast tide of life flowed daily in and out of one hundred gates, and its armed men went out to battle in time of war, in bands of twenty-five thousand through every gate. The mountains about Thebes, especially Gornoo, are tunneled in every direction, with the once gorgeous sepulchers of the Theban kings, and the plainer ones of the multitudes.

In those days, there was a large class of men trained to the trade, skillful and shrewd, who drove a thriving business in embalming. They kept patterns of coffins, and models of mummies, preserved with more or less elegance, which they showed to their patrons. The bereaved customer decided upon the style of embalming, and the number of coffins, according to his affection and the state of his purse. A three hundred dollar mummy would be neat, but not tasteful; eight hundred dollars paid for one that was stylish; twelve hundred dollars secured something decidedly rich, and one at fifteen hundred dollars was gorgeous. They paid their money and took their choice. The first step of the process of embalming, was to hook the brains out at the nostrils with a crooked iron, and the subsequent proceedings are unpleasant to describe. It is enough for a people that does not practice the art, to know that the body was disembowelled with care, its contents preserved with tenderness, its cavities filled with preparations of spices and petroleum, and that it was then exposed to a certain degree of heat, which sent the resinous exhalations into every fiber and tissue. To be thoroughly embalmed, an Egyptian must undergo nearly as many contrary experiences as a London chronometer before it is pronounced infallible. He was heated and cooled, soaked and dried, shaken up and allowed to settle; he was bound in linen bandages from a quarter to a half a mile long, according to his rank, varnished with Petroleum, gilded on the end of his nose and the tips of his toes, laid in a coffin with a beetle at the top and a lizard at the bottom, and lo! a first chop mummy. Nothing could be more soothing to sorrowing friends; the consciousness of possessing the best gotten up mummy of the season could not fail to alleviate the deepest grief. The dear departed was carried to the tomb of his ancestors, and set up against the wall to await the return of the soul. A number of sacred vases surrounded him, (containing the contents aforesaid,) which constituted a private and limited anatomical museum of his own, where he might have the felicity of gazing through ages at all those disagreeable internal arrangements which nature was so respectable as to conceal during life. So they have been waiting, waiting all these years, for the recreant spirit to return,

but nobody has arrived except the marauding traveler, eager for relics. You see they had no one to tell them about the bourne of the undiscovered country, so they are still in a state of expectancy. Kings, who in life were called "Lords of Diadems, greatly glorious," stand there in state, their royal blood replaced by Petroleum, with nothing to reign over but their own small cabinet of physiological curiosities. Priests are there, brown and plenty as herrings, in sanctified coffins, ornate with the insect deities of Egypt. Beaux of the Hyksos dynasty, repose in the remnants of trim splendor, in blessed unconsciousness that the gold on their fastidious noses is quite tarnished by the dampness of centuries. There too, are the belles of three thousand years ago; gay creatures, who coquetted with Memnon and kissed their fingers to Sesostri; the bloom that belongs to belles has given place to a dusky bituminous hue, and they are all brunettes together; the once soft hair, is stiff and lustreless as withered grass, the armlets have corroded on their brown shiny arms, yet they still keep the look they wore in life, and continue to welcome all visitors with the expression of suave self-possession acquired by a long residence at court.

In Egypt there was no imprisonment for debt, and good securities were therefore in great demand; but both borrowers and lenders had an inexhaustible resource in the catacombs; fast men, who lived a little beyond their income, pawned the mummies of their ancestors, and went into pledge themselves after death, for the benefit of extravagant sons. Time has hardly changed the features of many of these embalmed bodies; the outer bituminous shell is perfect, but brown and brittle as glass. BELZONI says that once, after pushing his way through a narrow passage several hundred feet long, exhausted with his efforts, and sick with the constant contact with dead men's bones, and the dust of crumbled humanity, he ventured to sit down for a moments' rest upon a mummy, but it went crashing through with him like a bandbox.

There has been a good deal of inquiry as to the source from which the Egyptians derived such quantities of spices and bituminous substances as were necessarily used in embalming; their own country may have furnished a large amount of the former, but of the latter there appears as yet, no trace in Egypt. They may have received them from the shores of the Dead Sea, or perhaps, from the distant region of Bakoo, on the borders of the Caspian sea, whose springs of Petroleum are among the most profuse in the world; even the hollows of the surface there, are full of oil, and the shallowest excavation becomes a perpetual fountain. It is, however, more probable that the Egyptians were supplied from the Island of Zante, on the west coast of Greece, of whose wonderful oil springs we have a record more than two thousand years old. Herodotus himself visited them, and afterwards described their wonders. This island, too, is supposed to have furnished the ingredients for the notable Greek Fire, a compound invented by a Syrian, in the seventh century, and used in the defence of Constantinople during two sieges against it, by the Saracens. The horrors of this missile, in those early times, can hardly be conceived by men accustomed to the thunder and lightning of modern warfare, or by women, who live through one Fourth of July celebration annually. Sometimes the mixture was rolled into fire-balls, and projected through copper tubes; oftener, bands of flax were dipped in it, wound about arrows and javelins, and discharged flaming. The scimitar of the Saracen might flash through and through the burning mass, without stopping its course, and the lumbering, mediæval

battering-rams were helpless to resist the fiery flying dragon, that came hissing through the air above them. The Saracens looked upon it as an invention of the Evil one, if indeed, it was not a veritable discharge of live imps, and whole phalanxes of heroes quailed and fled at the sight of it. The secret of its composition was long kept inviolable, transmitted from father to son as an heirloom, or sold to princes at a great price, but it is now considered to have been a simple compound of bitumen, pitch and sulphur.

There is another place as famous for its profuse supplies of Petroleum and Naptha, as Zante or Bakoo. Like them too, its age is unknown, its origin goes back beyond the beginning of history, and the earliest accounts of it speak as if it had always existed. This is in Birmah, in the Rangoon district. Five hundred and twenty wells, sunk in beds of sandy clay and clayey slate, yield every year more than four hundred thousand hogsheds of oil. The huge supply has not only employed hundreds of persons in collecting and refining it, but has given rise to a race and a city of potters. The neighboring town of Rainanghong is chiefly inhabited by them; the soil affords the greatest facilities for their trade, and the oil demands an enormous quantity of vessels. The city is belted and buttressed with great pyramids of earthen jars, waiting to be filled, and large boats are always coming up the Irrawaddy, stowing in and carrying away fat cargoes of the pots of oil. All through Birmah and many other parts of India, it has been used for centuries for purposes of illumination, as well as for medicine, and for rendering timber weather-proof.

In the north of Italy, Amiano and other places have long furnished a profusion of Naptha, and the cities of Genoa and Parma are lighted with it. South of Vesuvius, a spring of Petroleum bubbles up through the sea, and it is, indeed, very generally found floating on the water near volcanoes, or about volcanic islands. In the Island of Trinidad, in the West Indies, Petroleum exhibits a strange freak. Besides exuding from rocks and springs, in the usual way, it has formed a lake between two and three miles in circumference; warm and liquid in the centre, where it is always slowly boiling, but thickening as it recedes from this point, till at the margin it is cold and solid. Persons may walk upon it at pleasure, when the weather is cool, and when it is hot, they have the opportunity of learning by experience how flies feel in molasses. Masses of bitumen are scattered over the ground in the vicinity of the Lake, and stand out among the foliage like rocks of brilliant jet. It has been said by some travelers, that this Lake of Tar, as the inhabitants call it, is underlaid by a bed of coal; an assertion not to be received without further and more scientific examination, as this would render it a peculiar exception to all other localities producing Petroleum in any quantity.

In our own land before its colonization, and perhaps before its discovery by Columbus, the Indians of the Six Nations enjoyed the knowledge and the use of many oil springs about the sources of the Alleghany river. They seem to have collected it chiefly from the surface and banks of two streams, both of which afterwards received the name of Oil Creek; one being in Alleghany County, New York, and the other being in Venango County, Pennsylvania. Along the borders of the latter, there may still be seen the remains of ancient pits, which must have been dug by them to catch the exuding Petroleum; and occasionally a notched pole is found in them, by which they probably went up and down into the pit, as notched poles pass for ladders among savages

everywhere. The Indians employed the oil for medical purposes and in many of their religious ceremonies, but the chief use of the Petroleum was in mixing the rude paints with which they adorned themselves for peace, or made themselves a shade more hideous for war. It was HUMBOLDT, we believe, who found the South American Indians so charmed with the garb of civilization, that they would willingly have adopted it, except for an early prejudice against clothes. They did what seemed to them more advisable, imitated it. One young man was so delighted with the Sunday suit of a sailor, that he immediately had himself painted blue from the neck to the waist, and white from the waist to the ankles, to represent Jack's blue jacket and duck trowsers. Another of more martial inclinations, was captivated by an officer's uniform. It was comparatively easy to paint the coat and pantaloons, but when it came to the double row of military buttons, that was labor indeed. Fortunately, the artist was the young man's mother, and she, patient and proud where her motherliness was concerned, as all women are, toiled on with tireless perseverance, till the toilet was completed, and the happy dandy strutted off, nude as nature and gay as a peacock.

The native air of the Six Nations forced them to wear something thicker than a coat of paint, so they were obliged to limit their adornings to their arms, face, and legs, which they striped, barred, dotted, or daubed, according to taste. Petroleum is frightful to smell, but one must suffer to be handsome, even in the wilderness, so they painted away and didn't mind the odor. After the Atlantic coast from Massachusetts to Georgia was bordered by a broken line of settlements, and after the French had stretched their chain of sixty forts across the country, from Montreal to New Orleans, colonists, both French and English, began to appear in the wilderness, and the Indians sold the Petroleum to the new settlers as a specific for rheumatism and various other affections. The white people called it Seneca oil, after the tribe who chiefly used it as an article of barter, and considered it a rare and very efficacious remedy. From this period we have more accurate knowledge of the modes of securing and using the oil. An olden record tells us, that the popular method of collecting it, was to throw a log across one of the oil-producing streams, to stop the flow of the floating mass upon the surface; when it had accumulated sufficiently they sopped their blankets in it, wrung them out, and sopped them again, till the oil was exhausted. More than a hundred years ago, at the time of the French and Indian war, the commandant of Fort Du Quesne (which stood precisely where Pittsburg now stands,) wrote a letter to MONTCALEM, the general of the French troops in Canada, giving a very interesting account of a great Indian assembly on the banks of Oil Creek. At night, after their harangues and wild war-dances, when the darkness was thickest, they set fire to the sheet of oil upon the surface of the creek, and yelled and danced upon its edges. The hills were black around, the sky sombre and starless; the blaze went up in vast sheets and tongues of fire, mingled with swarthy volumes of smoke, and the whole scene was like a startling glimpse into a world of flames and torment, peopled by howling demons.

The early settlers soon learned the localities of the rock oil from the Indians, and collected it themselves in small quantities; the principal spring on Oil Creek, has furnished a yearly supply for medical purposes, never exceeding twenty barrels. It seems not to have occurred to the good people who gathered it, that the quantity might be increased by digging

deeper pits, or the quality improved by distillation. For years they, and others, hovered on the very verge of the great discovery, fairly stumbling over it, but never seeing it. In Ohio, as early as 1818, in boring for salt water, a vein of oil was struck which rushed up so violently, accompanied with jets of gas, that the salt-making had to be stopped. A gentleman of Ohio, recounting the fact some years later, in the *Journal of Science*, said that the oil was already much used for the lamps of workshops, and prophesied a brilliant future for it. Still, no one seems to have taken the idea. Later yet, in 1845, in boring for salt upon the Alleghany, about forty miles above Pittsburg, the rock oil was struck again; but it was only looked upon as a medicine, and sold in ounce bottles at a high price.

It is a strange fact that attention was first directed to the commercial value of Petroleum by the progress of science in another direction. The distillation of bituminous coal and shales had been growing more and more extensive, and successful for years, and the apparent identity of the oil produced from them, with the rock oil, prompted experiments to determine whether the natural oil would not furnish as many and as useful products as the artificial.

One of the springs on Oil Creek was purchased on speculation in 1854, and the oil was tested and reported on, but nothing farther seems to have been done till 1858, when two New Haven gentlemen resolved to continue the search, and one of them, Col. DRAKE, removed to Titusville, and began his arrangements for boring into the rock below the bed of the creek. The process was new and slow, and it was not till August 26th, 1859, that the first oil well struck the Petroleum at the depth of seventy feet. A small pump was introduced, which pumped four hundred gallons a day; this was exchanged for a large one, which furnished one thousand gallons daily; then a steam-engine was applied, and the supply still continued uninterrupted for weeks. Business immediately turned over a new leaf, in Venango County and therabouts; land rose like a feather, and prices went up out of sight. Every one was going to be rich the day after to-morrow, or as soon as he could get his shaft down. The narrow strips of meadow land on either side of the stream were perforated with wells, and the derricks for working the drills, stood up in the yards and gardens of the villazes, as thick as masts in a harbor. French Creek, and a part of the Allegheny river, were found nearly as productive as Oil Creek, and in a little more than a year, two thousand wells had been sunk. Many delays were met with at first, from the caving in of the sandy, clayey soil, and from meeting with quicksands. To avoid these difficulties, and the trouble of timbering the sides, an ingenious method was invented. Iron pipes, from four to six inches across, were driven through the earth to the rock, and the drills were worked through them; when the oil was reached, the pipe guided its egress, or could be furnished with a stop-cock to regulate its flow. The wells varied in depth from sixty feet to six hundred feet; the Empire spring was of the latter depth, with a hose leading from it to a reservoir three hundred feet higher, and the pressure of the gas which issued with the oil, forced it up the whole nine hundred feet. The most profuse vein, the Phillips, yielded three thousand barrels daily, and the others varied from fifty to five hundred barrels. When one became exhausted, the supply was often renewed by drilling a little deeper. In Ohio, not far from the Pennsylvania border, the people had noticed a strong taste of oil in the water of the vicinity, and this, after the success of the wells in Venango County, induced

them to make a similar attempt. Petroleum was reached at the depth of fifty feet, and within six months after this, there had been seven hundred wells sunk. Ritchie and Wirt Counties, in Virginia, have also been found to produce good oil. The first attempt of the kind in New York was made about a year and a half ago, in Alleghany County, near a famous pool which had always been known as the Oil Spring; but before the iron pipe could be driven down to the rock, the oil, mingled with water, rushed up like a fountain. The jets of gas which accompany the Petroleum are often very profuse and very continued, and in Chataque County they have been secured and made use of to light the town of Fredonia, and the lighthouse in Portland Harbor on Lake Erie. The Canada oil district has surpassed all the others in the immense amounts it has produced, as well as in the quality of its products. Its greater weight gives it a higher value than that of other districts, as the heavy oils are more valuable for distillation. The wells are situated in low, swampy land, about thirty miles south-east of Port Sarnia on the St. Clair river, and not more than fifty miles from Detroit. It is said that there is already more American than British moneys invested there, and more Michigan men than Canadians, at work. In some of the localities the surface is found to be covered with a stratum of hardened asphaltum two feet in thickness; in others, the ground is submerged to the depth of several inches with the surplus oil from the great wells. The roads, the wharves, the depots, the warehouses everywhere within reach of the great oil regions of Canada or Pennsylvania, have been blocked up, and filled to fullness, with the vast amounts of oil waiting for transportation; the wells on Oil Creek alone are estimated to yield nine hundred thousand barrels a year; the Enniskillen wells are still more productive; the Ohio and New York wells yield less, yet still large amounts. The extent of this mighty ocean of oil may be better understood, when we remember that the entire product of our whale fishery in one of its most prolific years, was not quite four hundred and thirty thousand barrels of sperm and whale oil together.

The source of these vast supplies of oil has been much discussed, and there are still some points in their history which remain obscure. We trace their remote origin to the great forests of antiquity, whose shrubs were trees, and whose trees were giants; we know their greatness by the casts of their mighty trunks, and the silhouettes of their huge leaves, which we find in our coal mines. Submerged and subjected to certain strange agencies, the vast, rank forest turned slowly into coal. Such a change involves a separation of carbon and hydrogen, sometimes as gas, sometimes as oil, or as both combined. Gravity would force the fluid to seek the lowest level it could find, through every crack and fissure, which accounts for its being found not only below but often remote from the coal deposits. Under other circumstances, the pressure of water from beneath, or the volatile nature of the gas which accompanies the oil, force it up, into the highest attainable level, thus bringing it often into strata above the coal measures. Just how, or when, or why, these wonderful transitions took place may never be definitely known; for in the vast crucible beneath our feet, where fierce fires are always raging, each change is directed by the hand of an Almighty chemist, with faultless wisdom, and in ways often past finding out.

It may be safely predicted that the Petroleum will have an immense effect upon the arts and industries of the world; already, in its infancy, it

has been applied to various purposes with great success. It furnishes a gas far more brilliant than that produced from coal; machinery oils of several kinds are obtained from it; wax, for making candles, and the bases of many brilliant dyes, are taken from it in the process of distillation. It is being daily experimented with more and more, and a thousand new uses are prophesied for it. Speculators and commission merchants, hoopers and coopers, railroad companies, and cart men, have had a flourishing time of it. Indeed, it has been said that the entire population of Pennsylvania is blissful, with the exception of one farmer who lost his feather crop, because his geese went swimming in Oil Creek, and came out tarred and feathered.

People who do not live in an oil district, and have no occasion either to buy or sell Petroleum, stand aside and take various views of the matter. One of our witty countrymen is afraid that the world will soon stop revolving for want of something to lubricate its axis. The Philosophers among us, say that we have ascended another round in the Ladder of Progress. Practical men fix their minds upon exports and tariffs, tares, and nett incomes. Some pious souls, as good as saints but not as cheerful, have terrified themselves by the idea that the immense influx of inflammable oil into the world, is to facilitate its burning; that it is in fact, merely a measure preparatory to the arrival of the great and notable day, when the elements shall melt with fervent heat, and the earth, and all the things that are therein shall be burned up. Even if their theory were correct there would be no terror in it, for when the appointed time comes, the world might as well burn quickly as to be long about it. If it is necessary for the satisfaction of certain minds to interpret the recent events scripturally, let them be taken in a more beneficent and hopeful signification. Every one whose duty or inclination has led them much among the poor, knows that the worst horror of winter to them after the bitter cold, is its terrible darkness. Work begins before light, and ends long after. The weary nights that stretch far down into the morning, and begin midway in the afternoon, leave only a narrow strip of sunlight between. Where the hungry mouths are scarcely filled, there is no money to expend for oil or candles, and many a working man and boy could tell them, that for months in the winter, "its always dark at home." Let our conscientious but melancholy friends remember, and help to fulfill the prophecies, that "to them that sit in darkness, light shall spring up," that "darkness shall be as the noonday," and that in the home of the humblest man, "at eventide it shall be light." Aside from all private interpretation of prophecy, there are simple and noble uses to be made of all the Master's gifts, if men have but the will to see them, and we hope that while Commerce claims new profits from Petroleum, and Science works out from it new results, Philanthropy will not forget to make it bear its share in the sweet services of charity.

THE ENLARGEMENT BY GOVERNMENT OF THE ERIE, OSWEGO, AND ILLINOIS CANALS—A MEASURE BOTH IMPOLITIC AND UNNECESSARY.

A TIME of war, requiring all the energies of a people, with its attendant excitements, is clearly not a favorable time for reflection or deliberate action. So far as it becomes necessary to act for the purpose of securing the nation's safety from the danger then threatening, the government must, of course, be prompt and energetic. If the transportation of troops or supplies require the building of a canal or railroad, such a canal or railroad should be built whatever the cost. Anything and everything necessary for the successful prosecution of the war should be done; but farther than that, it is clearly not advisable to go. Therefore all plans, schemes, or undertakings, well enough in times of peace, become objectionable when a nation is engaged in a contest that requires so great an expenditure of men and money as the present requires of us.

And yet, although every one must acknowledge this, it is strange how little these ideas influence us. Such, however, is human nature that when an individual or a nation of individuals begins to pay out large amounts of money and engage in large undertakings, former prudent habits and practices appear to be lost sight of, and millions even, look no larger than the dollars of the year previous. The child thinks the world can be bought with the first penny he holds, but let him have an abundance of pennies and he loses all idea of their value, and can find ways of spending more each succeeding day. Our nation now seems to us to be like an over-indulged child. A little more than a year ago we thought there was need for economy; that our expenditures were getting enormous—seventy millions a year! so all acquiesced in believing that no new scheme requiring more money should be entertained for a moment. War has come of most unheard-of proportions; our expenditures are no more counted by dollars, but by millions and hundreds of millions. Surely so much money will be our ruin unless we are very careful.

In confirmation of this last assertion, consider a moment some of the measures now before Congress, involving the government in large expenditure or loss. The Homestead Bill has already become a law—a project perhaps good enough if our treasury were full, or if we were at peace, and had time to reflect upon its bearings. Then, again, direct mail communication with China and other nations is being urged (for the purpose of fostering trade with them), and government aid is asked. Very likely these are worthy measures, but have we anything now to spend in those directions? Again, a canal around Niagara is planned—an excellent idea probably, if we had the money to pay for it or the time to consider it. A railroad from Washington to New York, and another to the Pacific*—very

* Since the above was written the Pacific Railroad Bill has passed. At any other time and under any other circumstances we should rejoice at this; but we cannot now look upon it otherwise than as a great misfortune. The bill passed we have not seen yet.

good speculations for the country, but has our government anything to invest just at present? So, too, the Illinois Canal project, and the Erie Enlargement bid fair to receive favorable action. And thus we might go on naming any and every plan involving the expenditure of money, which has ever been heretofore presented to Congress, and we will find that this year it is being favorably considered.* These prospective charges, too, upon the national treasury are, it must be remembered, in addition to the appropriation bills of nearly six hundred millions for the coming year, already passed, and the debt of (nobody seems to know how many) millions, already incurred. The same extravagant spirit also seems to possess our State Legislatures. We can here, however, only refer to the Military Bill passed by the New York Legislature—a measure involving the State in an outlay of five millions of dollars (a snug little sum as we formerly thought), for its organization, and one million a year for its maintenance.†

Surely, after considering these facts we must conclude that the management the past year, of large amounts of money has been too much for the heads of legislators. An interested outsider would think we had enough to do to meet the present expenses without increasing the burden; and that an absolute veto should be put upon all these outside matters. Very likely we shall be told that these are old fogy notions not fit for war times, or this wonderfully progressive age: yet we think this present debt-creating policy is so serious a matter, that we must raise our protest although the multitude may not applaud.

We have been led to make these remarks in view, particularly of the proposition now made to enlarge our canals, so as to pass gun-boats through them, to which plan our excellent President (heretofore a prudent man) has lent his influence.‡ There is something so plausible and pleasing in the idea of filling the lakes with our ocean iron-sides and filling the ocean with our grain-loaded boats direct from the lakes, and surpassing all other nations in power and patriotism, that we forget there are several steps and much time between the thought and its accomplishment. To our mind the fact that we have, at present, no time and no money to spare upon such a project, is sufficient.

But we are told these enlarged canals are necessary as a military measure; the country needs them as a means of defence; not of course, in carrying on this war (oh! no), but to prevent or prosecute future wars with—England! We really wonder whether this idea has any weight with any of those who advocate these measures. Our skepticism is of so rank a nature that it is impossible for us to believe it has. For if there ever was a proposition that is clearly absurd, certainly the one now made to enlarge

* We see the papers announce that an entirely new measure is soon to be introduced, and is likely to pass—the giving of pecuniary aid to Mexico in her present struggle! Would it not be well to send her a hoghead or two of paper money! It might be spared we think, without harm.

† This statement we first met with in the *Albany Atlas and Argus*, and have since seen it contradicted, and the law explained by its friends. But we have examined the law with the explanations offered, and are forced to the conclusion that (in case the number of the militia reaches the highest point contemplated by the bill) the above estimate cannot be out of the way.

‡ See the message of the President on submitting to Congress the memorial of Mr. RUGGLES.

these canals as a *military* necessity, is entitled preëminently to that position. According to our opinion, the fact that this plan is not proposed as a measure necessary for the present war, is, as we have said before, sufficient to entitle it to defeat, until our exhausted treasury is supplied a little. But aside from, and in addition to this, we think it is very plain that as a *military* measure it is not worth considering a moment.

The report of the Hon. F. P. BLAIR, jr., is the only form in which this question is presented officially for the action of Congress. His proposition is to enlarge the Erie and Oswego Canal locks to twenty-six feet in width, and two hundred feet in length, and the Illinois and Michigan Canal so that it will pass the shallow side-wheel steamers of Western rivers. In order that these improvements may be effective as a means of defence, of course it is necessary that the canals when finished, should with their enlarged capacity be able to furnish the lakes with as effective war vessels as can be placed there by England through her Canada canals. And yet it is a fact, that the St. Lawrence ship canals already have locks forty-five feet wide, and two hundred feet long, by which sea-going vessels can be passed to Lake Ontario. Then again, the Welland Canal, from Lake Ontario to Lake Erie, now has locks twenty-six feet wide, and one hundred and fifty feet in length, and long before we could finish our project, they could be made twice that size. With, therefore, Canadian locks forty-five feet wide, and hence capable of passing vessels of about that width, how can we expect to put war vessels on the Lakes able to compete with them through locks twenty-six feet wide. The proposition is a plain one, and will we think, require close figuring, and civilian generalship to work out a satisfactory answer. Is anything more needed to show that as a *military* measure, the project must be a failure?

But again. It will be remembered that the object of this enlargement is for defence in a war with England—the greatest naval power in the world. With this idea before us, the question naturally suggests itself, where are we, in case of war, to get the vessels to take through the canals to the Lakes. All we have on the sea-board, we should clearly need to keep there. We certainly could not spare them for the defence of the Lakes. It is a very pleasant idea to say that we shall always have ships enough for both services: and so we might perhaps, if we intended to change the entire policy of the government, and increase our navy a hundred fold. But in a time of peace, the situation of our country is such that we do not need so large a navy as England needs to protect her sea-girt shores, and she never can allow us, even if we had the desire, to equal her in that respect. In this connection it must of course be borne in mind that these enlarged canals would be of use only to pass the vessels on hand at the time the war began. If we had none to spare at that time, then of course they would be of no advantage, since all we should build for the Lakes, after the war had begun, could be built on or near them, better than in our present navy yards—the necessary material being cheaper there than here. Hence, as we said before, unless we are hereafter to change our entire policy, and keep in time of peace a navy rivaling England's, these canals would be of no use in a military point of view.

Then again, why would not the true place to defend the Lakes against English vessels, be at the mouth of the St. Lawrence. We have never been blessed with a military education, and yet it looks to us as if, were you to stop up that hole, there would be no rats to trouble us on the Lakes.

We can send vessels of any size there, and certainly must be able to cope with England at that point, if at all, much better than on an inland Lake, our entrance to which is to be twenty feet narrower than hers.

But there is another very cheap and excellent way of defending ourselves on those Lakes, whenever we may consider it necessary to do so. To be sure the plan does not involve any fat jobs, but to our mind that is no objection. As to the enlargement of these canals, the Congressional committee having the matter in charge tell us, we believe, that seven millions of dollars will cover the expense. Judging from the estimates made for the Erie enlargement, and the amount actually paid out in its accomplishment, we may multiply this estimate by five at least, if we would have the probable cost, and then, we must remember, we would have an entrance to the Lakes twenty feet narrower than the Canadian entrance. Instead, therefore, of carrying out this never-ending, exhausting, and as a military measure, useless project, let us take a portion of one years' interest on this immense sum, and defend our Lakes by establishing an armory and navy yard in the West, and let a certain number of these iron-clad vessels be there framed, put under cover, and kept for use when needed, with all the different parts completed ready to be put together on the shortest notice. This we think is a very effective, simple, and inexpensive way of accomplishing a desired end. Even if the canal enlargement were made, we should have to keep on hand a surplus of small vessels, or else in time of war we should not have any to send to the Lakes: for we would need our entire stock to defend the sea-board, as we have already stated. Hence, if we will select a point in the West where iron, timber and coal are cheap, and make that our depot, we will be at less expense in the matter of vessels, and no expense whatever for enlarging canals.*

Thus we have very briefly endeavored to show the utter foolishness of this proposed plan of defending our Lakes. Whether or no these canal enlargements would be for the benefit of trade, is a question we do not care to discuss. It in no way affects the issue. Congress has no power to appropriate money for such purposes. Our country too is, as we have stated before, engaged in a very expensive war. The debt is increasing daily by millions. Unless we economize in every possible way, our energies and resources will be crippled and paralyzed by taxation to such an extent as to make little difference whether we have large, or small, or no canals. Were this measure a present military necessity, of course we should not hesitate a moment to give it our unqualified approval. Our government should be upheld, whatever the cost, or whatever the burden assumed. But to add to our present expenditure, except in case of absolute necessity, seems to us utter madness.

* Peoria has been suggested as an excellent place for a Western armory. It might be well to have a navy yard there too, as it combines many advantages. This would involve the enlarging of the Illinois canal—but as that is only one hundred miles in length, the expense would be comparatively trifling. We consider it a great advantage to have the navy yard off from the Lakes, since its possession could be retained even if we were to lose control of the Lakes—a very important consideration in our opinion. We do not propose this as a measure which should be carried out immediately, if at all. We only suggest it as a plan far better and less expensive than the one before Congress. There is no need for it at present, and we have no money to spare at present. *Retrenchment should be our motto now.*

COMMERCIAL CHRONICLE AND REVIEW.

COURSE OF BUSINESS—IMPORTS—DUTIES—EXPORTS—EXCESS OF IMPORTS—PAYMENTS IN COIN—SPECIE MOVEMENT—EXCHANGE—RATES OF—PAPER MONEY—PAYMENTS FROM TREASURY—PRICE OF STOCKS AND GOLD—TABLE OF PRICES—EXCHANGE OF 7.30's—GOLD NOTES—SUPPLY OF PAPER—RATES OF MONEY—NEW YORK STOCK—HIGH PREMIUM—FINANCIAL SITUATION—RECOVERY IN CIRCUMSTANCES—LOAN OF PAPER—ERRORS OF GOVERNMENT—NO SUBSCRIPTION TO LOAN—SECRETARY'S REPORT—STATE OF FUNDED DEBT—ALL PAPER MONEY—CONVERSION FAILED—STOCKS FROM EUROPE—ACTUAL FALL IN GOVERNMENT STOCKS—AGGREGATE EXPENSES—CALL FOR MORE PAPER MONEY—GOVERNMENT BANK—DEPENDENCE ON PAPER—EFFECT OF PAPER ISSUES—IT DESTROYS REVENUE—IT INCREASES EXPENSES—FORCED LOANS—PRODUCTION THE BASIS OF TAXATION—WAR DESTROYS PRODUCTION—DEPENDENCE UPON CUSTOMS—BASIS OF CUSTOMS REVENUE—WANT OF CONFIDENCE—DISAPPEARANCE OF GOLD.

THE course of business has, during the month, exhibited an improving tendency. The long continued abundance of money and the reduced stocks of goods have naturally brought about a greater demand for the most necessary descriptions. It is true that the anticipation of a more liberal demand for goods from the South, consequent upon the opening of ports and the progress of the armies, has not been justified to the full extent; but the indispensable wants of great numbers of people gradually make themselves felt, despite the utmost economy. There has, therefore, been some revival in manufacturing industry, and an increase in the importation of foreign goods, as seen in the following table:

IMPORTS, PORT OF NEW YORK.

	Specie.	Free goods.	Entered for—		Total.
			Consumption.	Warehouse.	
January.....	\$168,658	\$2,552,050	\$6,668,895	\$3,141,725	\$12,620,829
February.....	62,007	3,381,478	7,058,174	3,370,486	13,872,140
March.....	89,827	3,476,004	10,812,689	4,841,846	18,719,866
April.....	26,152	2,232,815	7,141,197	3,858,218	13,252,682
May.....	110,383	1,146,098	8,091,120	4,600,920	12,948,516
Total, 4 months..	\$451,532	\$13,047,935	\$39,366,576	\$19,808,195	\$72,914,238
" 1861.....	20,522,515	15,095,889	30,165,694	25,426,536	91,210,143

Exclusive of specie, the entries of goods are but little more for the whole period of five months than they were last year. The quantities of goods put upon the market this year are nearly nine millions more than last year, or, with the duties, they have been as follows:

	Goods on market.	Duties.	Per cent.
1861.....	\$62,670,346	\$9,700,272 54	15.4
1862.....	71,452,613	20,398,460 89	28.5

These duties show the change from the old to the new tariff, and the charge is nearly doubled on goods imported. The exports from the port of New York have been as follows for the same period:

REPORTS, PORT OF NEW YORK.

	Specie.	Foreign.		Domestic.	Total.
		Free.	Dutiable.		
January.....	\$2,658,374	\$27,193	\$149,493	\$12,053,477	\$14,948,437
February.....	3,776,919	49,066	203,757	10,078,101	14,112,843
March.....	2,471,233	65,388	458,917	8,985,176	11,980,714
April.....	4,087,675	56,350	607,678	8,002,094	12,708,797
May.....	5,164,536	76,971	752,797	9,837,693	15,342,097
Total, 4 months..	\$18,108,737	\$274,968	\$2,197,642	\$48,944,541	\$59,517,888
" 1861.....	8,005,196	1,036,847	2,534,586	51,207,009	57,783,638

The marked feature is the large increase in the export of specie, exclusive of which the exports correspond with the imports as follows:

	1861.	1862.
Imports.....	\$70,686,628	\$72,462,706
Exports.....	54,778,442	51,409,161
Excess of imports.....	\$15,909,186	\$21,054,555

The decline in the prices of grain has involved the export of much larger quantities to produce the same amount of exchange, which has been scarce, and gold has been freely shipped to make up the deficit, which has been further increased by the tendency of stocks to come home from Europe for sale, in consequence of the inflation of prices caused by the paper issues here. The financial course of the government has not been such as to inspire confidence, and a very large margin existed between the prices of stocks in London and in New York. The specie movement was, therefore, progressive, as indicated in the following table:

SPECIE AND PRICE OF GOLD.

	1861.		1862.		Gold in bank.	Price of gold.
	Received.	Exported.	Received.	Exported.		
Jan. 4...				\$442,147	\$23,983,878	2 a 4 prem.
" 11...	\$1,445,385		\$885,923	1,035,025	25,373,070	4 a 5 "
" 18...	1,446,219			547,708	26,120,859	4 a 4 1/2 "
" 25...	1,246,029	\$22,855	627,767	322,918	26,698,728	2 a 3 1/2 "
Feb. 1...	1,514,154	289,669		310,484	27,479,533	3 1/2 a 3 1/2 "
" 9...	1,052,313	115,693	854,000	976,235	28,196,666	3 1/2 a 3 1/2 "
" 15...	1,056,426	117,101	614,146	1,156,154	28,114,148	4 a 4 1/2 "
" 22...		187,253	759,247	734,512	28,275,992	3 a 3 1/2 "
March 1...	855,755	176,161	741,109	510,774	29,826,959	2 a 2 1/2 "
" 8...			679,075	585,236	30,436,644	1 1/2 a 2 1/2 "
" 15...	815,524	128,316	677,058	477,335	30,773,050	2 a 1 1/2 "
" 22...		91,161		540,968	32,023,390	1 1/2 a 1 1/2 "
" 29...	699,597	6,088	490,368	779,564	32,841,862	1 1/2 a 1 1/2 "
April 5...	996,445	628,708	581,292	673,826	33,764,382	1 1/2 a 1 "
" 12...	1,110,231	323,906		1,505,728	34,594,668	1 1/2 a 2 1/2 "
" 19...		328,127	617,279	693,432	34,671,628	2 a 1 1/2 "
" 26...	844,577	1,000	685,546	1,151,300	35,297,944	1 1/2 a 1 1/2 "
May 2...		800	410,804	712,275	35,176,828	2 1/2 a 3 1/2 "
" 9...	868,600	27,695	484,019	1,574,166	32,239,868	3 1/2 a 3 1/2 "
" 17...	756,102		604,682	1,093,031	30,280,697	3 a 3 1/2 "
" 24...	1,913,355		604,682	938,032	30,672,760	3 1/2 a 3 1/2 "
" 31...	2,232,137	500	224,911	881,452	31,397,284	3 1/2 a 3 1/2 "
June 7...	1,618,876	650	555,035	1,647,299	31,284,382	3 1/2 a 4 1/2 "
" 14...	380,000	18,976	352,391	1,990,327	31,162,048	4 1/2 a 6 1/2 "
Total..	20,894,425	2,193,723	11,421,807	21,797,865	.....

The price of gold, in paper, rose rapidly under the shipping demand, which became urgent about the middle of April, when the government issue of paper commenced. The rates of exchange followed the rise in gold, and was as follows:

RATES OF EXCHANGE.

	London.	Paris.	Amsterdam.	Frankfort.	Hamburg.	Berlin.
Dec. 1,	109 a 109½	5.25 a 5.15	40½ a 40½	41 a 41½	35½ a 36	73½ a 74
" 15,	110½ a 110½	5.15 a 5.10	41½ a 41½	41½ a 42	36½ a 37	74 a 74½
Jan. 1,	110½ a 118	5.12½ a 5.05	42 a 42½	42½ a 43	37½ a 38	74½ a 75
" 15,	113½ a 114	5.05 a 4.90	42½ a 43½	43½ a 43½	37½ a 38½	75½ a 76½
Feb. 1,	113 a 113½	5.10 a 4.95	42½ a 43½	43½ a 43½	37 a 38½	75½ a 76
" 15,	115 a 115½	4.97½ a 4.90	42½ a 43½	43½ a 44	37½ a 38½	76½ a 77
Mar. 1,	112 a 113	5.05 a 5.00	42½ a 43	42½ a 43	37 a 37½	75½ a 75½
" 15,	112½ a 112½	5.07½ a 5.03½	42½ a 43	42½ a 43½	36½ a 37½	74½ a 75
" 22,	111 a 112½	5.08½ a 5.00½	42 a 42½	42½ a 42½	36½ a 37½	74 a 74½
" 29,	111 a 112	5.10 a 5.05	42 a 42½	42½ a 42½	36½ a 37½	74 a 74½
Apr. 5,	111½ a 112½	5.07½ a 5.02½	42½ a 42½	42½ a 42½	36½ a 37½	74½ a 75
" 12,	111½ a 112½	5.10 a 5.03½	42 a 42½	42½ a 42½	36½ a 37½	74½ a 74½
" 19,	111½ a 112½	5.10 a 5.03½	41½ a 42½	42½ a 42½	36½ a 37½	74 a 74½
" 26,	111½ a 112½	5.02½ a 5.07½	42½ a 42½	42½ a 42½	36½ a 37½	74½ a 74½
May 2,	112½ a 113½	4.97½ a 5.02½	42½ a 42½	42½ a 42½	37 a 37½	74½ a 74½
" 10,	113 a 114	4.91½ a 5.02½	42½ a 43	42½ a 43½	37½ a 37½	75 a 75½
" 17,	113 a 114	4.96½ a 5.00	42½ a 43	42½ a 43½	37½ a 38	75 a 75½
" 24,	114½ a 115	4.92½ a 5.00	42½ a 43	43 a 43½	37½ a 38	75½ a 75½
" 31,	114 a 114½	4.95½ a 4.91½	42½ a 43½	43½ a 43½	37½ a 38½	75½ a 76
June 7,	114 a 115	4.95 a 4.91	43 a 43½	43½ a 43½	37½ a 38½	75½ a 76
" 14,	117½ a 118	4.75 a 4.82	43½ a 44½	44½ a 45	39 a 39½	76½ a 77½
" 26,	120½ a 121	4.70 a 4.66	44½ a 45	45 a 45½	40 a 40½	78 a 78½

The government paper money being ready for delivery in the fore part of April, it was paid out freely from the Assistant Treasury in New York, and its effects are manifest in the following table, showing the weekly payments, the deposits, and specie in the banks, the export and premium on specie, the price of United States 6 per cent stock, the premium on the old paper money, or that which is receivable for customs:

	Payments.	Bank deposits.	Specie.	Specie exports.	Prem. on stocks.	Prem. Price old notes.
April 12.....	4,438,831	93,769,063	34,594,668	1,505,728	1½	93½
" 19.....	12,531,675	95,179,340	34,671,528	693,432	1½	94½
" 26.....	24,723,223	101,897,435	35,297,944	1,151,800	1½	96
May 3.....	22,747,942	109,634,535	35,175,828	712,275	2½	99
" 10.....	17,187,322	115,559,246	32,239,868	1,574,166	2½	102
" 17.....	9,885,727	120,003,929	30,280,697	1,093,031	3½	105
" 24.....	10,445,000	122,602,864	30,672,760	938,032	3½	103½
" 31.....	6,886,052	125,434,751	34,397,284	881,452	3½	104½
June 7.....	6,570,830	125,566,961	31,284,882	1,647,299	4½	106½
" 14.....	9,832,791	126,643,375	31,162,084	2,040,327	6½	107½
" 23.....	8,486,213	126,654,422	31,047,945	3,150,988	7	106

As the paper money flowed out of the Treasury, it swelled the deposits in the banks, and sought investments as a matter of necessity in government paper, deposits, 5 per cent certificates, one year 6 per cent certificates, three year 7.30 bonds, and, to a small extent, in twenty years 6 per cent bonds. The price of which rose 14 per cent in paper, while gold rose 5 per cent. The different descriptions of government paper were affected as follows:

PRICES UNITED STATES PAPER.

		5 th , 1861.		5 th , 1874.	7-10, 3 years.	6 p. c. certifi. 1 year.	Gold.	August demand notes.
		Reg.	Coup.					
February	5,.....	88	89	75½	..	..	..	..
"	19,.....	90	90	79	99	..	..	..
March	1,.....	98½	92½	85½	99½	..	2½	..
"	13,.....	98	98	86	100	..	..	..
"	19,.....	94	94	88	100	..	1½	..
"	26,.....	94½	94½	87½	100	97	1½	..
April	1,.....	98	98	87	99½	96½	2½	..
"	7,.....	98½	98½	87	100	97	1½	..
"	30,.....	97½	98½	89½	102½	99½	2½	par.
May	10,.....	108½	108	94	104	99½	2½	½
"	17,.....	105	105	96	105	100½	3	½
"	23,.....	104½	104½	96	105	100½	3½	½
"	31,.....	104½	104½	96	105	100	3½	½
June	7,.....	103	106	96	106½	100½	4½	1
"	14,.....	103½	107½	97½	106½	100½	6½	3
"	26,.....	102½	106½	96½	108½	99½	9	4½

The June quotation for the registered stock are ex-interest. The paper flood floated up these securities to par nearly, for gold, but in doing so attracted stocks from Europe. The interest on the stocks is payable in gold, and consequently the Treasury must buy gold, since the \$60,000,000 of old paper money out is held to pay duties, the only revenue of the government. The Secretary, therefore, changed the 7.30 bonds for gold at par with the banks, to the extent of \$6,000,000, which served to pay the July and August interest, most of which is due to the banks. The Secretary also exchanged \$2,500,000 7.30 bonds for old paper money, at 3 per cent premium, when the market price was 6½ per cent premium for the bonds, and 1 per cent premium for the notes, an operation which left a large profit to the banks. It was justified on the plea, 1st, that the Secretary wanted money, and 2d, that it was requisite to get the old notes out of the way as fast as possible, in order to get gold for customs; but as there are \$56,000,000 of these notes outstanding, the getting in \$3,000,000 would not help the Treasury. Again, if the notes were got into use as money, they would be paid out again, an operation which the law forbids. Again, if money was the object, the 3-year bonds would have brought 6 per cent in new notes, instead of 3 per cent in old notes, which are no more money than new notes. The operation was private and was inexplicable.

The flood of money from the Treasury, which so filled the bank vaults, inflated stock prices, and swelled the Treasury deposits, also caused a fall in rates, which were as follows:

		On call.		Endorsed.		Other good.	Not well known.
		Stocks.	Other.	60 days.	4 a 6 mos.		
October	1,....	6 a 7	6 a 7	6½ a 7	8 a 12	12 a 15	24 a 26
Feb.	1,....	6 a 7	7 a.	5½ a 7	6 a 7	8 a 12	.. a..
April	5,....	5 a 6	7 a.	6 a 7	8 a 9	7 a..	.. a..
"	26,....	5 a 6	7 a.	6 a 7	8 a 9	7 a..	.. a..
May	2, ...	5 a.	7 a.	6 a 7	8 a 9	7 a..	.. a..
"	10,....	4 a 5	7 a.	5 a 6	7 a 8	7 a..	.. a..
"	17,....	4 a 5	7 a.	5 a 6	7 a 8	.. a..	.. a..
"	24,....	4 a 5	6 a.	4 a 5	6 a 7	6 a 7	.. a..
"	31,....	4 a 5	6 a.	4 a 5	6 a 7	6 a 7	.. a..
June	7,....	4 a 5	6 a.	4 a 5	6 a 7	6 a 7	.. a..
"	14,....	3 a 5	6 a.	4 a 5	6 a 7	6 a 7	.. a..

The demand for money was very small, but little new business paper is made, the offerings for discount were very limited, and money was at 3 per cent on call. On the 1st of July many States paid their interest in gold. These payments, with those of the Federal government, were estimated at \$7,000,000, a considerable portion of the gold remaining with the banks that held the stocks. The State of New York negotiated a loan for \$800,000 @ per cent, redeemable, 1878, payable in gold. The amount of money offered was \$5,400,000, and was awarded at a premium of '110.79½, equal to 117 currency, or more than 10 per cent higher than federal stocks, which are not subject to taxation. When Federal stocks are so low, the transaction is a significant one.

There has been no material change during the month in financial affairs, although there has been considerable progress in the development of those effects of paper money which we pointed out in our last, as apparent in the market. The symptoms of paper inflation have manifested themselves mostly in the rise of stocks, gold, and exchange. Yet these unmistakable evidences of approaching danger, have been, by a portion of the community, regarded as signs of prosperity, and by others not bold enough to deny their evil import, as the results of speculation. It is remarkable how exactly arguments and assertions reproduce themselves with the recurrence of the same circumstances. When the irredeemable paper money of the revolutionary French Government began to depreciate, the apparent rise in prices was charged upon speculators, forestallers, monopolisers, and the government resorted to laws making it criminal to charge a premium for gold; *maximum* laws fixing the prices for all necessities of life; laws to punish contumacy in refusing to sell at legal prices, and manifold devices, the only result of which was to crush out production and accelerate ruin. After a lapse of seventy years, the same effects from the same causes are again charged upon speculators. The results cannot, however, be changed. In embracing the paper money policy, in order to avoid direct taxation, the government has invited national ruin to shield politicians from present responsibility. This process must be continued, for the reason that the accumulated capital of the country, which seeks permanent investment, is rapidly decreasing, and not a dollar has been obtained by the government from that source in the last six months. We may look back at events. The Secretary, in his annual report, states that the debt of the government had been, July 1, 1861, \$90,867,828, and December 1 it was \$267,540,035, an increase of \$176,672,107. Of this amount there had been subscribed by the banks \$50,000,000 in 7.30 notes, and \$50,000,000 in 6 per cent 20 years' stocks, making \$100,000,000 held by the banks; also, \$50,000,000 had been taken by the public in 7.30 notes, and \$24,550,325 had been put out as currency. May 29, the Secretary made another report, and the funded debt had risen to \$491,448,984, an increase of \$233,008,949. Of this increase none whatever had been subscribed. It was composed as follows:

7.30 notes paid out.....	\$20,528,450	5.20 bonds funded notes...	2,699,400
Paper money paid out...	121,326,675		
Deposits at 10 days notice	50,778,566		\$248,100,641
1 year certificates paid out	47,199,000	Less treasury notes red'med	19,191,692
Oregon war debt.....	570,550		
		Net increase of debt.....	\$233,008,949

The 7.30 three year bonds were paid out to creditors, and exchanged with banks for gold with which to pay interest on the bonds they held. The operation was the same as compounding the interest at 7.30 per cent. The paying out of the notes caused the price to fall to 96. The issue then stopped, and one year certificates paid out until the price fell to 95. The issue was then stopped, and the paper money paid out, which filled the banks and returned upon the Treasury in the shape of deposits at 5 per cent. This resource having reached its limit, the proposition was made to fund the demanded notes in the 5-20 6 per cent stocks. These are called 5-20's, because they are payable at the pleasure of the government after 5 and at 20 years. This resulted in \$2,699,400 out of \$500,000,000 authorized to be funded. From these circumstances, it is apparent that the only resource of the government in the last six months, has been paper money. There was no desire to invest in the stocks, even at 7 per cent, when money was only worth 5 per cent in the open market. Under the influence of the paper, prices apparently rose, and the rise drew considerable amounts from Europe. The rise was, however, only apparent, since on the day of the Secretary's report, United States 7.30's were at 5 per cent premium, and gold $3\frac{1}{2}$ per cent premium, which was equal to a premium of $1\frac{1}{4}$ per cent for the stocks in gold. On the 26th June, the 7.30 were at $5\frac{1}{2}$ per cent premium, and gold 9 per cent. Thus the bonds had, for gold, fallen to $3\frac{1}{4}$ discount, although they had risen $\frac{1}{4}$ for paper.

The receipts of the government, in the six months, for customs and other sources, were \$30,000,000, which, added to the increase of debt, makes \$254,000,000 paid in the six months for expenses, besides large amounts in arrears, estimated at \$100,000,000. Under these circumstances, the Secretary came forward and asked for \$150,000,000 more paper money, and to remove the limit on the amount of deposits that might be received at interest, and for the right of purchasing any United States stocks. In other words, to inaugurate a bank of discount, deposits, and circulation to the extent of \$300,000,000. These resources were supposed equal to the \$250,000,000 that would be required until January 1, 1863. The fact of the demand shows that the Secretary does not delude himself with the idea, that much stock can be sold in the market, at a time when capital has ceased to accumulate in the country, and is becoming constantly deteriorated. There is another delusion which has yet to be dispelled. It is that which seems to be common to many members of Congress, viz.: That paper money may be a permanent resource. Up to a certain point, the channels of business will absorb circulation, and that point depends upon the quantity of crops and goods produced, and the activity of trade. The moment that point is passed prices rise; if the circulation is gold, it flows off to other countries, until the currency is depleted. If the currency is paper, prices continue to rise exactly in proportion to the quantity of paper put out, and it soon ceases to be a revenue. To illustrate, if the crop of wheat is 100,000,000 bushels, or 20,000,000 barrels of flour, the price may be \$5 per barrel; when the currency amounts to \$100,000,000, if the government adds \$100,000,000 to the currency, the flour may be \$10, and the farmer pays his tax with half the quantity of produce. In other words, the government revenue really falls one-half, and everything it buys doubles in price. The expenses of the war increase in the proportion of the paper. If in the first

year of war at specie prices, the expense is \$620,000,000, the second year in paper will cost \$1,200,000,000. Thus every dollar of paper the government puts out, takes so much from its revenue, until it ceases to have any. The usual resort in such cases is forced loans, payable in the depreciated paper, in order to get it out of the market. The whole then becomes obsolete. The real and only capital of the country depends upon production. From this alone arises any surplus which can be loaned to the government. The productions of the United States have hitherto been very large, but it is not so now, for the reason that war absorbs all productive powers. We are now producing battles and not wealth, but we are rapidly spending that which was before produced. In illustration of this diminished production, we may take from official sources, the leading agricultural productions of the Southern country, which result altogether from black labor. The gross number of blacks was, in round numbers, 4,000,000, all of these are not engaged in field labor, but if the products are averaged upon the whole, the ratio is as follows for 1860:

Sugar and molasses crop.....	\$23,000,000
Tobacco	40,000,000
Rice and lumber.....	5,100,000
Naval stores and spirits turpentine.....	4,500,000
Cotton.....	225,000,000
Total six articles.....	\$297,600,000

Of these quantities, about \$230,000,000 were exported out of the country. The whole is an average of \$70 per head for each black, in addition to the other productions. The war has stopped that production, and regarding the Union as a whole, which is responsible for her war debt, it is so much wealth to be deducted from the means of payment; the resumption of these productions, after the war, depends upon the *Status* of the producers. If the war lasts three years, the loss is \$1,000,000,000, supposing the production to be resumed afterwards. It is true that the blacks are employed producing food, but that is consumed by themselves and the troops at the North. The returns of the Treasury Department, show the annual production of agriculture and manufactures at the North to be \$1,500,000,000, and the number of able bodied workers is 5,000,000, which would give \$300 per head each, or \$60 per head for each person, but there are 750,000 employed in the war, consequently, the production is diminished \$225,000,000 per annum. Thus admitting that the whites in the Southern armies produce mostly nothing, the war stops the production of wealth equal to \$600,000,000 per annum, to this add the actual expense of the war, \$700,000,000 for the first year, and the yearly cost is \$1,300,000,000. The exhaustion of capital takes place step by step with the accumulation of debt. There is more to pay, and less to pay it with. We may now look at the actual revenues of the government for the past 40 years, that is, from 1821 to 1861, inclusive. They may be said to have been derived altogether from customs, and are given in the last annual report of the Secretary of the Treasury, at \$1,211,456,389. This is an average of about \$30,000,000 per annum for the whole period, and it has been derived from duties upon imported goods. It is obvious that goods imported, are only the proceeds of the sales of American produce abroad, consequently, the amount of imports depends upon what we have to sell. The produce exported, and the value

of imports, exclusive of specie, have been as follows, according to the tables contained in the last annual report of the Secretary of the Treasury :

Value of net imports for 40 years.....		\$5,666,442,155
Exports—Value of cotton.....	\$2,608,885,574	
Value of tobacco.....	368,965,777	
Value of rice.....	89,286,689	
Value of lumber, naval stores, &c	250,000,000	
Total of black labor.....	\$3,317,088,030	
Breadstuffs and provisions	\$1,101,817,970	
All other articles.....	642,023,667	
Total exports goods.....		5,060,929,667
Excess of imports.....		605,512,488
Specie imported	386,501,487	
Specie exported.....	718,487,688	
Excess of exports.....		331,986,201
Net excess of imports.....		\$273,576,287

This excess is accounted for by earnings of American vessels abroad, stocks sold abroad, &c. The general result is, therefore, that more than 60 per cent of the goods imported in the last 40 years, were paid for by that black labor which is jeopardized by the present war, and, as a consequence, more than 60 per cent of the whole government revenue has been derived from the same source. That revenue can be supplied only by taxes. In other words, had that description of labor not existed in the past forty years, the Northern labor would have had to pay over \$3,000,000,000 in taxes to sustain the same revenue—and, consequently, if events destroy that labor, for the future, the whole weight of the great expenses, and the existing debt, must be paid by taxation at the North. From these facts it is apparent, that a great deal depends upon the financial management of the war. If a system of unbounded extravagance, with that which now exists in paper money, is to be pursued, because the members of the present Congress are so wanting in every statesmanlike virtue, that they prefer national ruin to the risk of losing their own places, speedy bankruptcy must result. On the other hand, an adhesion to a specie basis, with adequate taxation to meet the necessary expenses, may keep the debt within a manageable amount. The present financial system already totters to its base. It will be remembered that the disappointment caused by the annual report of the Secretary of the Treasury, in December last, produced a panic which drained the banks of \$20,000,000 of gold, and made them suspend in three weeks. Since then we have exported \$20,000,000 of gold. The banks of the three cities hold \$6,000,000 less than they did in April. The weekly export is \$3,000,000, and the premium is 9 per cent.

The public are losing confidence in Congress, and a slight movement like that of December, will cause all the gold to disappear in a week, and the premium become enormous. The quantity of gold in the country is by no means large. At least \$60,000,000 of what there was is hoarded at the South, and the available balance is small, as seen in our March number.

ENLARGEMENT OF THE CANALS.

MEMORIAL OF HON. S. B. RUGGLES TO THE PRESIDENT ON BEHALF OF
THE STATE OF NEW YORK.

To his Excellency, Abraham Lincoln, President of the United States :

THE Legislature of the State of New York, on the 22d of April, 1862, passed an act to adapt the canals of the State to the defense of the northern and northwestern lakes. Their joint resolution of the same date requested the Governor of the State "to take such measures as he shall deem necessary and proper for inviting the attention of the general government to the measures proposed in the act, and their great importance to the national interests."

Pursuant to that resolution, the Governor, having transmitted to the President of the United States a copy of the act duly authenticated, specially delegated the undersigned, as having been officially connected for several years with the canals of the State, to present the subject proposed in the law to the consideration of the general government. In the execution of that duty, the principal facts necessary to be understood have been verbally communicated to the President, but, under his permission, they are now respectfully laid before him in writing, and somewhat more in detail.

They fall under the two general heads of the national defense and the national commerce.

1. The practicability of employing canals as engines of national defense mainly, arises from the recent unexpected but very important discovery, that impregnable mail-clad vessels, comparatively small in size, are capable of effectually resisting vessels of vastly greater dimensions; and further, that one such impregnable vessel would be able, in a few hours, to destroy a whole squadron of vessels-of-war of the descriptions heretofore in use. This striking truth, so signally demonstrated by the recent achievement of the Monitor upon the waters of the Chesapeake, almost within the hearing of the national capital, must inevitable work a radical revolution in naval warfare. Among its other singular and immediate results, is the greatly increased importance which it imparts to canals of moderate volume, heretofore supposed to be useful for carrying vessels of commerce. As carriers of impregnable vessels-of-war, they assume at once a new dignity. They rise to the rank of naval channels, and become necessary parts of the machinery of war.

The interesting question then arises, what dimensions are required for a canal to enable it to pass impregnable vessels adequate to the defense of our national waters, and especially the great chain of lakes?

On this point testimony is at hand of the highest authority, derived from a source no less reliable than ERICSSON himself, the inventor of the Monitor. A letter herewith transmitted from that distinguished engineer

and mechanician states: "That an impregnable war vessel of 25 feet wide, and 200 feet long, with a shot-proof turret, carrying a gun of 15-inch caliber, with a ball of 450 pounds, and capable of destroying any hostile vessel that can be put on the lakes, will draw, without ammunition, coal, or stores, but 6 feet and 6 inches water; and, consequently, will need only a canal wide and deep enough to float a vessel of those dimensions, with locks of sufficient size to pass it."

The Erie and Oswego canals of the State of New York, respectively connecting the Hudson River with Lake Erie at Buffalo, and Lake Ontario at Oswego, are 70 feet wide, and 7 feet deep; but their present locks are too small for the purpose in question. The cubic contents of a lock required to pass the impregnable iron vessel above described are about 38,500 feet. The present Erie and Oswego locks, which are but 18 feet wide, 110 feet long, and 7 feet deep, contain but 13,800 cubic feet. If enlarged to 26 feet wide, and 220 feet long, (to admit the swing of the gates,) they would contain 39,900 cubic feet.

In point of capacity, the canals of Canada far exceed those of the State of New York. The locks of the series of canals around the rapids of the St. Lawrence, within the British dominions, which afford direct and easy access from the Atlantic into Lake Ontario, are 45 feet wide, 200 feet long, and 8 feet deep, and have a cubic capacity of 72,000 feet. The present locks of the Welland Canal, which opens a similar passage from Lake Ontario into Lake Erie, are 26 feet wide and 150 feet long, with a cubic capacity of at least 31,200 feet, which may be readily increased to the full amount required by lengthening the locks.

The Rideau Canal, which connects Montreal with Kingston, on Lake Ontario, through an interior route by way of the Ottawa River, is $5\frac{1}{2}$ feet deep; but its locks are 33 feet wide, and 142 feet long. Their present cubic capacity is only 23,430 feet, but if lengthened to 220 feet, would be 36,600. The greater width of the lock would measurably compensate for the shallow draught, and permit the passage of war vessels of dangerous dimensions.

From this brief summary it will be seen at once that the British Government, whether designedly or not, has secured to itself means of naval access to the lakes far exceeding those the United States now possess, and that the only appropriate and certain remedy for this evil is the adequate enlargement, without delay, of the locks of the American canals leading into that important chain of waters. On this point the opinions of our intelligent and loyal citizens are very decided. Numerous petitions have already reached Congress from the inhabitants of the cities adjacent to the lakes, (including, among other eminent individuals, a former President of the United States,) in which they forcibly and truly state that "the United States have no impediment to offer if, during the season of navigation, a fleet of British gunboats from the Atlantic shall purpose to take possession of the entire chain of lakes and connecting rivers," and earnestly solicit the government to adopt measures for their defense, without delay, by the enlargement of the locks of the Erie and Oswego canals, expressing their opinion that "the immense national interests involved in the military possession of these waters can be secured in no other mode at so small a cost of time and money."

The country has learned with much gratification that the Committee on Military Affairs of the House of Representatives, in Congress, have

already had this subject under attentive examination, as forming part of a general system of defense. In the comprehensive and truly national report recently made to the House by that committee, they express their earnest conviction that "a small fleet of light-draught, heavily-armed, iron-clad gunboats could, in one short month, in despite of any opposition that could be made by extemporized batteries, pass up the St. Lawrence, and shell every city and village from Ogdensburg to Chicago. At one blow it could sweep our commerce from that entire chain of waters. Such a fleet would have it in its power to inflict a loss to be reckoned only by hundreds of millions, so vast is the wealth thus exposed to the depredations of a maritime enemy." The vivid language of their report utters but the truth in declaring that the wide spread cities and commerce of these great inland seas "are now as open to incursion as was Mexico when invaded by Cortez."

It is no sufficient answer to assert that these canals of Canada, affording facilities of access so dangerous, were constructed only for commercial purposes. Nor indeed would it be true. Taught by the experience of the war of 1812, the attention of the most eminent British statesmen and commanders has long been occupied with the importance of these canals, not merely as commercial but as military channels. Their struggles in that war to secure the naval command of Lake Ontario, together with the conflicts on Lake Erie and Lake Champlain, are well remembered. In 1814 the Duke of WELLINGTON declared to the British ministry "that a naval superiority on the lakes is a *sine-qua-non* of success in war on the frontier of Canada." The treaty of peace in 1815 was followed, in 1817, by the "diplomatic arrangement," by which Great Britain and the United States mutually agreed to dismantle their vessels-of-war on the lakes, and reduce their naval force on each side "to one vessel of one hundred tons burden on Lake Ontario, and one on Lake Champlain, each armed with one 18 pound cannon, and on the upper lakes to two such vessels, armed with like force."

In 1819, but two years after that pacific arrangement, the Duke of RICHMOND, then Governor-General of Canada, transmitted to the Secretary of State, for the colonies, a report from Lieutenant-General COCKBURN in favor of a line of water communication, unquestionably intended as a military work, leading from Montreal, by way of the Ottawa River and the interior chain of minor lakes, of which the Rideau is one, to Kingston, on Lake Ontario. In 1823 it was determined that the cost of the work should be wholly defrayed by the mother country. In 1825, a commission, of which Major-General Sir J. CARMICHAEL SMITH was president, reported the estimated expense to the Duke of WELLINGTON, then a member of the British Government, whereupon the canal, with connecting works on the Ottawa, was constructed, openly and avowedly as a military work, by the royal engineers, under the direction of the Ordnance Department. It was completed in or near the year 1831, at a cost exceeding a million sterling. The preamble of the act of the local Parliament in Canada, authorizing the taking of lands for the purpose, passed in February, 1827, expressly recites that "His Majesty has been pleased to direct measures to be immediately taken, under the superintendence of the proper military department, for constructing a canal connecting the waters of Lake Ontario with the river Ottawa, and affording a convenient navigation for the transport of naval and military stores."

In 1831, Colonel DURNFORD, of the Royal Engineers, in his testimony before a committee of the British Parliament, stated that provision was made for block-houses at several of the locks of the canal, and that the work being intended as a military communication, it was necessary that fortifications and works of defense should be erected at the entrance of the canal, and in its immediate vicinity at Kingston. A fortress of very considerable strength was accordingly erected, and is now the most important military work on Lake Ontario.

The completion and defense of this interior line of water communication has been followed by the construction of a series of short canals, of much greater size, along the St. Lawrence River and around its rapids. Their capacity very far transcends any commercial necessity which can reasonably be expected on that line of communication for a long time to come. In point of fact, the descending trade of the St. Lawrence, (necessarily preponderating, like that of the Erie Canal, largely over the ascending,) is not one-third of that of the Erie Canal. Nevertheless, the existing locks of the Erie Canal are adequate to pass a descending trade double of that it now enjoys; while, again, the locks on the St. Lawrence canals, 45 feet by 200, have double the capacity of those on the Erie; from which three elements it is arithmetically evident that the locks of the St. Lawrence have at least twelve times the capacity really required for any purpose of existing commerce.

It was the deep conviction of danger in this inequality between the canals of the two countries for the purposes of national defense, and the absolute necessity of regaining, without delay, that equality of naval access and condition intended to be secured by the treaty stipulation of 1817, which led the Legislature of New York to pass the act of the 22d of April last. That such were the views of the Legislature, fully appears from the reports on the subject made in their Senate and Assembly. The report of Mr. OGDEN, Chairman of the Canal Committee of the Assembly, substantially confirmed by that of Mr. COOK in the Senate, truly asserts that these large dimensions of the Canadian locks, is so far beyond the meager wants of Canadian commerce at the time, suggest that the higher object of military defense was not lost sight of by far seeing British statesmen in their construction; and they will not complain if, on a subject of so much moment, we follow their example. A preparation for defense and provision for the rapid concentration of military and defensive power in time of need could not be construed, by any logical or fair course of reasoning, into hostile intent; nor would it provoke criticism from a nation so careful as Great Britain in placing herself in defensive position.

"Defensive measures are always pacific measures; their bearing and tendency are toward peace; they avert rather than provoke war; induce caution on the part of rivals and antagonists, and never provoke hostilities on the part of friends. It is submitted with entire confidence that the means of placing gunboats speedily and certainly on the border lakes will tend greatly to prevent war with our northern neighbor. She would respect us more, and surely not fear us less, if we stand on a perfect equality with herself in the particular referred to."

In opposition to these sensible and patriotic views, it has been asserted that no real necessity exists for enlarging the channels of our American canals for the passage of gunboats, but, on the contrary, that the safety of our cities and commerce on the lakes may be fully and surely provi-

ded for either by accumulating and storing materials for gunboats at points on the canal near the lakes, or, in case of war, by marching a military force into Canada to seize and destroy its canals.

In respect to the first of these expedients, it may be observed, that even if it could be lawfully and wisely adopted under the provisions and true intent of the existing treaty, the very materials thus to be stored for any adequate number of vessels, (estimated at \$200,000 each,) and probably destined only to decay through a long course of years, would cost very nearly, if not quite, as much as the whole expense of enlarging the ninety locks on the Erie and Oswego canals; and, furthermore, that we should much underrate the resolution and activity of our vigorous adversary in assuming that, with his large and powerful fleet of gunboats, ready at any moment to be precipitated into the lakes, he would give us time to complete our vessels before the mischief would be done.

In respect to the proposed seizure and destruction of the Canadian canals, it may in like manner be observed, and that too in a spirit of perfect amity, that our British brethren, sharing with ourselves a descent from common ancestors, inherit, at least, a reasonable amount of courage, if not of obstinacy; that the matter of seizing and destroying their canals, however trifling it may seem, would hardly go by default; and, at any rate, that their numerous and swift-sailing gunboats could ascend and ravage the whole coast of the lakes before our military columns, of adequate force, could be put in motion.

Such, too, seems to be the present opinion of the British people as manifested through their public journals. The leading article in the *London Times* of the 7th of January last, in reference to the disturbing affair of the Trent, then pending, declares:

"That as soon as the St. Lawrence is opened again there will be an end of our difficulty. We can then pour into the lakes such a fleet of gunboats, and other craft, as will give us the complete and immediate command of those waters. Directly the navigation is clear, we can send up vessel after vessel without any restriction, except such as are imposed by the size of the canals. The Americans would have no such resource. They would have no access to the lakes from the sea, and it is impossible that they could construct vessels of any considerable power in the interval that would elapse before the ice broke up. With the opening of spring, the lakes would be ours."

It was after a careful examination of this important matter in both houses of the Legislature of New York, and taking into view not only the greatly exposed condition of her northern water frontier, but the immense stream of lake commerce pouring into her territory, and through her canals and railways, not only from the mineral and grazing districts of northern Pennsylvania and Ohio, but from the truly imperial group of agricultural States adjacent to the upper lakes, that the act of the 22d of April was passed by large majorities both in the Senate and Assembly, placing all the State canals connected with the lakes at the service of the general government. By the provisions of the act, the United States will become fully entitled, whenever it shall provide the pecuniary means for enlarging the locks on the Erie and Oswego canals, to the perpetual right of passage through those canals "free from toll or charge, for its vessels-of-war, boats, gunboats, transports, troops, supplies, or munitions of war." The act grants a similar right of perpetual passage in case the govern-

ment shall provide the means for two other works, one being a branch canal (now partially constructed) from the Erie Canal to the safe and commodious harbor of Great Sodus Bay, on Lake Ontario, furnishing a very desirable rendezvous for naval vessels; the other being the enlargement of the Champlain Canal, on the direct route of the old and natural war path of our revolutionary history, and opening a channel of rapid and easy access to an important military point on the St. Lawrence River, before Montreal, where the chain of water communication between Upper and Lower Canada might be broken.

The cost of enlarging the locks on the Erie and Oswego canals, to be paid by the United States, will not exceed \$3,500,000. That of the branch to the Great Sodus Bay is not yet definitely ascertained. The enlargement of the Champlain Canal has been estimated by the State engineer at \$3,700,000; but with due economy may probably be considerably reduced below that amount.

The enlargement of the locks on the Erie and the Oswego canals can be easily completed in a single winter, and, if necessary, by the 1st of May next. Up to the 30th of September, 1861, the State had expended, in constructing these two canals, and in enlarging their dimensions to the size required for the commerce of the lakes, the sum of \$43,575,167. Their nett tolls, deducting repairs, are wholly devoted to the reimbursement of the debt incurred in their enlargement, and are kept at the lowest rate consistent with that object.

These then are the prominent features of the canals which the legislative act of New York has placed at the service of the government. In view of her peculiar geographical position in the Union, with three of the six great northern lakes (Champlain included) lying immediately on her border, she now feels entitled respectfully but earnestly to claim that the national duty of defending such a chain of seas, not only from imminent and immediate danger, but the remotest chance of assault and ravage by a maritime enemy, is among the highest and most imperative obligations of the general government. In entering into the Union, of which, through every change of circumstances, she has been a loyal member, she voluntarily and cheerfully surrendered to the general government, without stint or reservation, the rich revenues from foreign imports, which her geographical position, commanding at once the ocean and the lakes, would have enabled her, with any views less comprehensive and national, practically to monopolize.

For the sake of that priceless Union, she gave up all the common treasury, for the very purpose of enabling the national government then called into being fully and faithfully to discharge its sovereign and transcendent duties, among which none was more conspicuous or emphatic than the solemn and perpetual obligation imposed by the Constitution, "to provide for the common defense of the States." She does not presume or desire to calculate the value or count the cost of that glorious national structure, and nevertheless, in view of the scanty measure of protection and relief she now asks, far less for herself than the loyal group of sister States richly clustering around the lakes, she cannot refrain from stating that the duties collected at the single port of New York, and faithfully paid over to the national treasury, already amount to \$971,063,527; of which immense sum \$855,235,855 is included in the single decade from 1850 to 1860. These duties, it is true, were eventually paid by the con-

sumers of foreign products scattered broadcast throughout the nation, but it must be remembered that of those consumers a population of 10,58,005 are embraced within the States adjacent to the lakes, without including the narrow but very valuable strip of territory on those waters belonging to Pennsylvania.

How much, or rather how little has been done by the general government to provide for the common defense of the State around these inland seas from hostile attack, sufficiently appears from the fact that the whole amount appropriated for every species of lake defense, up to the present moment, is but \$1,676,650, while on the other hand, the cost of the fortifications alone on the Atlantic and Gulf of Mexico, to say nothing of the hundreds of millions expended on the navy, has been \$34,487,809.

To these facts the attention of the general government is now invited, in no spirit of complaint or supplication, but only of unaffected filial respect. New York did not complain even in 1811, when the government, then administered by President MADISON, denied the petition presented in her behalf by Dr WITT CLINTON and Governor MORRIS, two of her first canal commissioners, seeking the scanty measure of aid which, at that early day, she really required for pushing the Erie Canal through her nearly untrodden territory out to the great national wilderness around the lakes. The refusal, not particularly parental in tone or manner, served only to invigorate her youthful and unaided efforts, and compelled her to win alone the reputation she gladly would have shared with the ever-honored Union, of which she was, and is, and ever will remain, a dutiful and obedient member. But the present exigencies of her canals, like those of the kindred canal of Illinois, are wholly national; the duty of adapting them to the common defense emphatically and exclusively national; and it would be neither just nor generous to require either her or Illinois separately to burthen their people for objects plainly of primary interest and necessity to all the States.

2. The question then arises, cannot the United States now afford to expend the amount necessary to defend these lakes, with their immense fleets of commercial vessels, from maritime aggression; and this brings us to the class of facts secondly above proposed for examination, involving the national importance of the commerce of the lakes.

They will conclusively show, that the national commerce, for which the lakes afford the natural channel, constitutes a fundamental and vital element of our national strength; that it has now attained such dimensions that the general government cannot, wisely or safely, neglect or disregard it; and that, even for fiscal purposes, its pecuniary value is so great, with a prospect of increase so enormous, that the nation cannot afford, for a moment, to leave it exposed to any possibility of disturbance.

The present condition and past growth of this commerce will need to be stated somewhat in detail. It is so interwoven with the Erie Canal, its great national outlet to the ocean, that the history of neither can be complete without including both.

The Erie Canal, completed in 1825, with the scanty dimensions of forty feet wide and four feet deep, was regarded, for several years after its completion, by a considerable portion of our population, as a local work, mainly intended for the State of New York and its local commerce. Nor was this narrow view, at the time, particularly surprising, for, as late as

the close of navigation in 1837, of the total weight of the cargoes carried on the canal, (somewhat inaccurately denominated in the official tables as its "*tonnage*," being 387,506 tons in all, the local proportion furnished by the State was 331,251, while that of the cargoes coming from States west of her limits, and which, for brevity, may be called its "national commerce," amounted only to 56,255. Notwithstanding this disparity, and the slender portion then furnished by the West, an effort was made in the Legislature of 1838, for nationalizing the canal, at least, in public opinion, by pointing out the latent capacity of the agriculture of the States around the lakes, and its inevitable effect in reversing the proportions then existing between the local and the national cargoes. Differences of opinion, honestly entertained, on such a point, could be settled only by time. Twenty-four years have now elapsed, and the following is the result :

TONS REACHING TIDE-WATER BY THE ERIE CANAL.

	Local.	National.
1837	331,251	56,255
1842	258,672	221,176
1847	618,413	812,840
1856	374,580	1,212,550
1861	291,184	2,156,425

It will thus be seen that the proportions which, in 1838, were four to one in favor of the "local" commerce, were so entirely reversed that in 1861 they became nearly eight to one in favor of the "national."

By further analyzing the official tables we shall readily detect the cause of this immense increase of the national commerce, in the rapid development of the West, which may be regarded as "national agriculture," in contradistinction to the local agriculture of New York. The comparative progress of this interior agriculture is strikingly manifest in the cargoes of wheat and wheat flour carried by the canal, being, in barrels :

	Local.	National.
In 1837	747,876	284,902
In 1842	543,064	1,146,292
In 1847	791,106	3,989,232
In 1856	276,034	3,209,741
In 1861	745,022	6,712,233

If to this be added the very important element of Indian corn (the transportation and consumption of which have reached only their infant stages,) the contrast will yet be more striking.

National wheat and flour carried on the canal in 1861, was		Bbls. 6,712,233
National corn was		6,796,890
Total		13,498,523
Local wheat and flour was	745,022	
Local corn was	210,510	
		955,532

showing a national proportion, in these two cereals, exceeding thirteen to one.

A similar disparity also exists in the products of "the forests," being in tons—

	Local.	National.
In 1837	174,738	7,687
In 1842	125,623	31,069
In 1847	328,652	117,323
In 1856	173,608	335,797
In 1860	166,687	647,705

The fact may also be added, though rather incidental to the main subject, that the 494,057 tons of mineral coal transported through the canal and its branches in 1861 were exclusively furnished by the coal fields and coal bearing mountains of Pennsylvania and Ohio, and transmuted into gold by that very transportation.

It is on these facts that we claim that the Erie canal, with the Oswego canal as its co-equal and complement, has now practically become what its early projectors and friends insisted it would eventually become, a national canal. Like the national city of New York, geographically included within the limits of a single State, it belongs virtually to the nation. Its great office is to transport, not the trifling local products of any single state, but the accumulated products and fabrics of great groups of States to and from each other, and to and from foreign nations. Any measure for protecting its commerce, or in any way cheapening its means of transportation, inure to the benefit of the State of New York only in the scanty proportions above exhibited, being at present but one in thirteen for its most valuable cargoes; and even that proportion, small as it is, must steadily diminish under the resistless progress of our western agriculture.

The Erie and Oswego canals carry but a portion of the commerce of the lakes. Nearly all the merchandise which ascends the lakes, requiring expeditious movement, is carried, as it properly should be, by the railways, which also carry a small portion of the descending cargoes.

Of the descending agricultural products, the proportions of flour and grain coming from the lakes and carried eastward, in 1861, were as follows:

From Buffalo	51½ per cent.
From Oswego.	15½ "
From Dunkirk and Suspension Bridge.	9 "
From minor points in New York.	11½ "
Total.	87½ "
Descending the St. Lawrence to Montreal.	12½ "
Grand total.	100

In respect to the total amount of the commerce of the lakes, it may be stated in general, that the descending portion consists mainly of agricultural products, with a moderate per centage from the forests and mineral regions; and that the ascending portion embraces the equivalent amount of manufactures, merchandise, and other products or property received in exchange. Its pecuniary value in both directions is between two and three hundred millions.

This descending commerce is almost entirely the growth of the last twenty years. In 1837 it contributed to the Erie canal, in value, but \$4,713,636. So slow was its early progress that, as late as 1841, the amount of wheat and flour received at Buffalo was only 5,785,960 bushels; and of Indian corn, but 201,031 bushels.

The wheat and flour increased in 1851 to.....	10,609,341
The wheat and flour increased in 1856 to.....	14,095,911
The wheat and flour increased in 1860 to.....	24,014,324
The wheat and flour increased in 1861 to.....	37,973,175
The corn increased in 1851 to.....	5,988,775
The corn increased in 1856 to.....	9,633,277
The corn increased in 1860 to.....	11,386,217
The corn increased in 1861 to.....	21,026,657

being 59,007,832 bushels of these two cereals, with about 2,000,000 of smaller grains.

The total amount of cereals of all descriptions carried on the lakes, and consisting almost exclusively of wheat and flour and Indian corn, as extracted from the carefully prepared reports of the boards of trade of their principal cities, is as follows :

From Chicago.....bush.	54,167,007
From Milwaukee.....	18,778,629
From Toledo.....	18,706,510
From Detroit.....	7,167,450
Estimated for other ports.....	3,000,000
Total.....	101,819,596

The proportions may not be entirely accurate, but they suffice for the main purpose, which is to bring boldly out the one, gigantic and all but overwhelming fact, that the cereal wealth yearly floated on these waters now exceeds 100,000,000 of bushels. It is difficult to present a distinct idea of a quantity so enormous. Suffice it to say that the portion of it (about two-thirds) moving to market on the Erie and Oswego canals requires a line of boats more than forty miles long to carry it. The whole 100,000,000 of bushels, if placed in a single line of barrels of five bushels each, would span the American continent from New York to San Francisco, with a remnant nearly long enough to cross the Pacific. Shall not the American fleets, which yearly carry a mass of food so enormous, be protected from maritime assault and devastation?

The limits of the present communication forbid the full consideration of the transcendent importance of a cereal wealth, so immense and capable of such enormous increase. Its existence is a new fact in the history of man. In quantity, it already much exceeds the whole export of cereals from the Russian empire, the great compeer of the United States. Under the comprehensive and magnanimous statesmanship of that truly continental power, a magnificent system of canals, and river improvements, and railways, steadily prosecuted through every political vicissitude, from the days of PETER THE GREAT down to the reign of the present enlightened Emperor, connects its vast agricultural interior with the

ocean and the Mediterranean, through the Baltic, the White, and the Black seas—encircling the empire with points of agricultural export, stretching round from Odessa to Riga and St. Petersburg, and thence away to Archangel—and yet its total yearly export of cereals was, in 1854, but 27,000,000 of bushels, and in 1857 only 49,000,000, being a little less than half the amount carried in 1861 upon our American lakes.

It was the constant aim and effort of ancient Rome, even in the zenith of its power, to provision the capital and the adjacent provinces from the outlying portions of the empire. The yearly crop contributed by Egypt, under PROLEMY PHILADELPHUS, was 15,000,000 of bushels. Under the prudent administration of the Emperor SEVERUS, a large store of corn was accumulated and kept on hand, sufficient to guard the empire from famine for seven years. The total amount thus provided was but 190,000,000 of bushels. The product of 1850 of cereals in the five lake States of Ohio, Michigan, Indiana, Illinois, and Wisconsin, was 252,000,000 of bushels; being of wheat 89,000,000, and of Indian corn 177,000,000. In ten years, as shown by the census of 1860, it increased to 354,000,000 bushels; being of wheat 78,000,000, and corn 275,000,000, the residues consisting of the smaller grains.

Nor is this all. A prospect far more grand and national is just opening on the commerce of the lakes. The great and long-cherished measure of connecting their southwestern extremity, by an adequate water communication, directly with the Mississippi, near its confluence with the Missouri, and thus uniting, in one vast continental system, the broad basin of the lakes with the great network of navigable rivers, outspread for thousands of miles over the wide expanse of the great central interior of the Union, is now awaiting the decision of the national Legislature, which, in view of responsibilities so august, might well resume the significant title of "*Continental Congress*," adopted by their fathers. Let us not attempt to lift the veil from a future so stupendous, inevitably destined to repeat, on a yet grander scale, that immense agricultural development around the lakes which has now become historical. The rich cereals of Missouri, and Iowa, and Minnesota, and Kansas—States just creeping from their cradles—are already numbered by hundreds of millions of bushels, much of it perishing or wastefully consumed for fuel, merely for the want of this new avenue to the Atlantic.

The prediction in 1838 that our great interior States must eventually "become the common granary of the Union, and discharge the duty of supplying subsistence to the surrounding communities," though seriously questioned at the time, is already nearly, if not entirely verified. The fundamental law of demand and supply, necessarily causing the most advantageous distribution of labor, especially in a continental nation united like ours, under a common government, is now, at least partially, obeyed. The wheat crops of New York, whose principal and proper office is commerce, has already fallen to 8,681,000 bushels, hardly enough to feed her population for one-third of the year. The bushels produced in 1860 by all New England were but 1,077,000, sufficient only for three weeks' consumption. Surely, if any portion of our whole republic is especially interested in securing the food-bearing vessels of the lakes from the possibility of capture or interruption, it is the 3,000,000 of sagacious, loyal, and thrifty people who inhabit the granite ranges and rocky promontories of that ancient and noble family of States who, finding it easier

and better to spin than, to plow, compel their numerous and sparkling waterfalls, so richly scattered over their rugged country, to purchase from the fertile West the bread which they require. The magic power of the Union so entirely abolishes East and West, that the fabrics of the East are practically only the food of the West, reappearing in another shape, and in that more portable and convenient form, increasing the sum of our foreign exports.

It was a fortunate, if not a providential, coincidence, which led, in 1846, to the removal of the artificial and arbitrary restraints on the freedom of commerce created by the British corn laws, just as the vast agricultural power of our lake States began to dawn on the civilized world. The imports of cereals into the British Islands instantly rose from 37,918,000 bushels in 1846, to 115,059,000 bushels in 1860; and it may be safely affirmed that the year will never again arrive when those islands will yield food enough for their own consumption. Despite any and every struggle, the stern necessities of hunger will bind them at last, with bands stronger than iron, to the nation that can feed them.

Our tables of exports of domestic produce for the last forty years are replete with instruction as to the commercial and fiscal value, for national purposes, of the commerce of the Lakes. The total value of breadstuffs and provisions yearly exported to foreign countries, as exhibited by those tables, was \$12,341,901 in 1821; and in 1836, had actually diminished to \$10,624,130; and again in 1838, to \$9,636,650. Up to 1845, it had increased only to \$16,743,421, but in 1847, when the agricultural products of the great interior States began to pour in heavily from the Lakes (as shown by that unerring barometer, the Erie canal,) it rose at once to \$68,701,921.

Since that time it has fluctuated more or less, with the varying necessities of the nations of Europe; but, in 1856, the amount had reached \$77,187,301, which was again increased in the year ending the 30th of June, 1861, to \$93,969,682, exclusive of \$4,245,410 in cattle, hides, and tallow, which, for the present inquiry, might be fairly included. It is a fact of much significance that, in the year last mentioned, the total value of the cotton exported was but \$34,051,482, and during the current year little or nothing, conclusively showing that we shall be compelled, at least for a season, mainly to rely on our own exports of food and our manufactures, which are its direct and indirect derivative, for the means of importing the duty-paying foreign commodities from which the Treasury must derive its revenues, apart from taxation. The value of the manufactures exported in the year last mentioned (excluding those of cotton, which were \$7,957,038) was \$25,149,037, which, added to the \$93,969,682 of food, makes total export of \$119,118,689. This sum will purchase its equivalent in foreign commodities, on which an average import duty of 25 per cent would be \$29,779,471; conclusively demonstrating that the commerce of the lakes, for which these national canals furnish the necessary outlets to the seaboard, has become eminently and emphatically national in its character and consequences; that it constitutes a fundamental and vital element of our national strength, political, commercial, and fiscal; and that, in all these respects, it has now attained a national importance that American statesmen will not willingly, and cannot safely disregard.

With the view thus presented of the direct influence of the agricultu-

ral exports in securing duty-paying imports in return, it is really difficult to prescribe a limit of expenditure for securing the completion of cheap and capacious navigable channels, by which to augment the quantity brought to the seaboard; but it is certain that, if the due enlargement of the New York and Illinois canals were to cost even \$20,000,000, and should increase the yearly quantity but 10,000,000 of bushels, the import duties on the foreign commodities which that increase would purchase, would shortly reimburse the whole amount.

In conclusion, it remains only to notice an objection, which possibly may be urged by individuals of timid temperament, that the great national work of uniting the Hudson, through the canals and lakes, with the Mississippi, by an unbroken water communication, affording ample means, not only of public defense, but of rapidly increasing the national commerce, and its consequent contributions to the common treasury, is a measure to be considered only during a period of peace, and should not be undertaken or encouraged at the present time, nor till the pending effort to dismember the Union shall be finally terminated.

The force of this objection is not apparent. On the contrary, if the nation has temporarily lost a portion of its resources, it needs all the more to foster and replenish the residue. If one half the body politic be paralyzed, it is surely wise to strengthen the other. Nor is the real ability of the government to discharge all its duties really impaired to any serious extent. Despite the sneers of open enemies or treacherous friends on either side of the Atlantic, our country, in substantial credit, in agricultural wealth, in manufacturing power, and, above all, in every element of moral force, never stood higher.

Nor would any national adversity, however severe, justify the abandonment or disregard of a distinct constitutional obligation, or the neglect of a measure plainly calculated to increase our fiscal power, and encourage the industry and commerce of our loyal people. The hour of adversity is the time to try both men and nations. It is the opportunity kindly accorded to them by Providence, to show to the surrounding world their steady courage, their calm consciousness of strength, their indomitable self-sustaining power.

Such has been the example of every nation truly great. The British government bravely contending, all but single handed, for nearly twenty years against the colossal power of the first NAPOLEON, did not for a moment neglect to foster the commerce which enabled it to maintain that very struggle. The sturdy old Hollanders, after inundating all their lands to resist their haughty enemy, fitted out a fleet to sweep the Channel. It was amid the long and wasting wars of Louis XIV., that his great canal of Languedoc was constructed, under the consummate statesmanship of COLBERT, to connect the Atlantic with the Mediterranean. Its triumphant completion, immortalized by the historian and the poet, was solemnly celebrated amid the benedictions of the Church, and the acclamations of assembled France.

The American Lakes, with the enlarged canals of New York and Illinois as their chief accessories, if laid down on the map of Europe, would reach from the Atlantic to the Volga, and open an unbroken navigation through a majestic line of principalities, monarchies and empires, for ages disunited, and widely differing in language, laws, and race. By a beneficent Providence, this splendid series of connecting waters has been

committed to the American Union, for its highest purposes, both in war and peace. It is for the honored head of the government now to show that, fully recognizing this solemn trust, he is ready, with the co-operation of Congress, to go vigorously forward, and complete a work so important to the American people, for all coming ages.

Respectfully submitted in behalf of the State of New York, by

SAMUEL B. RUGGLES.

Washington, June 9th, 1862.

THE STEVENS (HOBOKEN) BATTERY.

The Washington correspondent of the *Philadelphia Press* says :—

It will be remembered that early in the present session of Congress a bill was passed making an appropriation of \$783,000 for the completion of this battery, subject to the direction of the Secretary of the Navy. The Federal Government has expended nearly half a million upon the battery, and Mr. STEVENS some three hundred thousand dollars. The commission to which the Secretary referred the measure, reported that the battery could not be completed unless certain alterations and improvements were made, and here the matter rested ; but Mr. STEVENS is now in Washington, and yesterday made a proposition to Congress and the Administration *to complete the battery out of his own funds*. He asks that the government should convey to him all its right and title to the STEVENS battery, and cancel the mortgage given by his brother ROBERT, for the faithful performance of his contract, and he then binds himself under a penalty of \$100,000 to finish it out of his own funds, as a war steamer, in one year, to throw a heavier broadside than any war steamer in the world now throws, and after its completion, the government shall have the option of buying it for \$783,000, the amount of its appropriation, and the estimated cost by the late board. Should the government refuse to accept it, it will then become the property of Mr. Stevens.

STATISTICS OF TRADE AND COMMERCE.

1. DOMESTIC HIDE TRADE. 2. THE INDIGO TRADE. 3. HUNGARIAN WINES. 4. THE LUMBER TRADE OF CANADA. 5. THE SUPPLY OF COTTON.

DOMESTIC HIDE TRADE.

A CORRESPONDENT in the *Shoe and Leather Reporter* makes the following statements: "All direct attempts at estimating the actual production of domestic hides have failed. The census, which should aid us in this investigation, is either silent or so imperfectly compiled as to lead us to no satisfactory conclusion.

"Let me attempt an approximate estimate by a course of statement and reasoning, the fallacy of which can readily be detected if erroneous; but if true the importance of the conclusion to which we are led will be perceived by all.

"The cities of New York and Brooklyn contain a population of one million—and they consume the beef from two hundred thousand cattle. This is a fact which we know. Now if we here consume no more beef than the average of the population of the United States, then we conclude that the 30,000,000 population must consume the beef from 6,000,000 cattle—consequently there must be at least this number of hides taken off and enter into consumption.

"Do the people of these cities consume more meat on the average than the whole population of the United States? The first impulse is to answer, yes; and this may be so, and if so, then to the extent of this difference the estimate may be varied—but before coming to that conclusion, please consider that while we have a large wealthy class that consume poultry, game, and oysters, we also have a large number of poor who cannot afford meat, and then add for all classes the immense consumption of fish, lobsters, clams, &c., which are consumed to a much greater extent here than in any other portion of the United States, and then the further fact that very large quantities of cured meats from the West are brought here, besides the boat and car loads of beef and small meats from all along the lines of our railroads, and particularly the very large supply in the fall season from the Hudson River—and I think few will think the estimate an unfair one.

"All will concede that the amount appears startling, but I am convinced the estimate is within the truth, and all the more when I consider how very largely beef enters into our exports to the West Indies, the fisheries on our northeast coast, and to all parts of Europe.

"From another point of view we arrive almost at the same conclusion.

"The consumption of leather made up in the form of boots and shoes is estimated at 40 per cent of the entire value of the consumption of these articles, 60 per cent being estimated for labor and other materials.

"In England, where economical statistics are more prized and more

fully kept, perhaps, than in any other country, they estimate the cost for the covering of the feet at sixteen shillings, or about four dollars. It must be much more here, since our people more generally wear boots than there; and besides our climate and the clearing and the occupation of new land must demand more substantial covering for the feet than in an old country with a much milder climate.

"Estimating then, as I think I am justified in doing, the cost of boots and shoes for each inhabitant at four dollars, for a population of 30,000,000, we have \$120,000,000, of which \$50,000,000 is credited to leather and \$70,000,000 to labor. Now add to this amount the leather used for belting, harness, trunks, and carriages, certainly not less than \$10,000,000 more, and we shall have \$80,000,000 worth of leather consumed.

"Where does the raw material come from for this vast aggregate. If we estimate the foreign importation at 1,500,000, and the domestic at 6,000,000 hides, and compute the value at four dollars each, we shall have \$30,000,000 for the raw material. It will cost from \$15,000,000 to \$18,000,000 to manufacture this raw material, thus leaving us from \$10,000,000 to \$12,000,000 for calf, kip, and sheep skins, both foreign and domestic, which enter into the consumption of shoe leather; for be it remembered I have not included book-binders' and hatters' stock, nor provided for the thousands of other purposes into which leather enters and is consumed."

On the strength of these statements the writer concludes, that it is more important we should watch hereafter the causes which affect the domestic production, than foreign importation. He also enumerates the following as some of the causes which effect the production of native hides:

"1st. The demand for and price of beef, not only at home, but abroad; for if beef is low cattle are withheld.

"2d. The price and condition of the grain market. If grain is low cattle will be retained to consume it; they will be kept over.

"3d. An expanded cheap currency induces large outlay in, and increase of the stock of cattle, in this way sometimes affecting the hide market for several seasons.

"4th. The opening of new territory and the increase of wealth in the far West is now, and has been for twenty years, absorbing a large amount of cattle."

The hints thrown out by this correspondent are important, and deserve the attention of the trade.

THE INDIGO TRADE.

The following is condensed from an article in the *London Shipping Gazette*:

In all calculations respecting future value, it is necessary that the total produce should be fully considered. The growth of indigo in India, arising from the long-pending differences between the landholders and ryots, may exhibit a comparative deficiency; but the question for both importers and consumers to consider is—will the arrivals equal the demand?

The moderate production of indigo in India, combined, together with the late upward movement in the currencies, has led to the publication of certain statements at Calcutta calculated to mislead operators in England. Not that there is any commercial reason why indigo should become lower in price, but it is evident that reckless speculators have advanced statements unsupported by facts. Our readers, perhaps, recollect the great difficulties attending cultivation and production last year, and were prepared for a considerable falling off in the importations of Bengal qualities; but the result was of a very different character. Although indigo fell in price at one time, the imports of shipments from Calcutta were about 2,000 chests in excess of 1860. As, however, the consumption was nearly equal to the arrivals, the increased supply was not felt as a kind of dead weight upon the market. In order to show more clearly the position of the trade during the past ten years, as regards Calcutta shipments, we insert the annexed statistics of imports and deliveries into London:

	Imports.	Deliveries.		Imports.	Deliveries.
1852...chests	23,479	26,913	1857..chests	13,689	16,349
1853	14,979	20,405	1858.....	16,039	15,555
1854.....	17,904	19,302	1859.....	12,419	15,839
1855.....	17,250	21,318	1860.....	17,619	16,641
1856.....	20,191	17,942	1861.....	19,593	19,528

These figures show that in the past ten years London dealers imported 173,112, and delivered 189,792 chests; consequently the deliveries, mostly accumulations in London warehouses, exceeded the arrivals by 16,680 chests. This is certainly a favorable report to make; but it proves, beyond a doubt, that more indigo was produced in the East last year than in 1860, notwithstanding the assertions that the quantity of land in cultivation was very small.

If we trace the trade this year—which opened well for importers and holders of stock—we shall find a falling off in the deliveries, arising, no doubt, from the high rates now prevailing, and an increase in the arrivals and consumption. In round numbers London has imported 4,500 chests East India, against 1,750 chests in the same time in 1861. The deliveries have fallen short of last season by about 400 chests, and the stock has increased from 10,700 to 12,600 chests. Nearly the same figures, as regards supplies, stocks, &c., apply to Spanish qualities; and yet our correspondents at Calcutta write us to the effect, that it is thought there is ample room for a further rise in the quotations of 20, 25, and even 30 per cent. France and Russia have forwarded large orders to Calcutta; but it appears that from the 8th of January to the 3d ult., the quantity shipped to the latter country was only 1,200 chests, against 2,500 last year. The exports to Germany comprised only 557 chests, whilst in 1861 they rather exceeded 1,200 chests. America, however, appears to have operated more fully—the quantity forwarded being 603 chests, against 425 chests. France has taken 4,500 chests, or 1,700 less than in the previous season. There is only one inference to be drawn from these figures viz., that hitherto London dealers have purchased a full average quantity of Bengal indigo, and that, consequently, future imports will be equal to their necessities. But, even if those necessities are well met, both Russia and France, considering the very moderate quantities they have purchased at Calcutta, may become larger buyers in the London market, and, in this

way, any accumulation of stock may be prevented, and firmness may be imparted to even the present high currencies. As we are not of opinion that much higher rates will prevail in this country as the year progresses, it is but just that we should insert the calculations made at Calcutta in reference to supply :

STOCKS, SHIPMENTS, &C.

	1862.	1861.
Stock at the beginning of the May sales... chests	15,433	12,108
Shipments to arrive for the July sales from Calcutta.	4,077	9,030
(Average 1854-61.) Madras and Pondicherry....	1,915	2,052
	<hr/>	<hr/>
	21,425	23,190
Deliveries between May and July, 1858.....	4,459	3,168
	<hr/>	<hr/>
Stock for the July sales.....	16,966	20,022
Probable shipments to arrive before the end of		
1862, from Calcutta.....	3,293	7,499
From Calcutta, Madras, and Pondicherry.....	2,465	3,002
	<hr/>	<hr/>
	22,724	30,523
Deliveries to end of December, 1858.....	13,983	17,690
	<hr/>	<hr/>
Leaves stock December 31.....	8,741	12,833

As regards the stock for the May sales, these figures appear to be tolerably correct, but our impression is, because it is admitted that, last year, the total available crop, including old stocks, was 67,430 maunds, the statement, or rather estimate, for the July sales is far too low, certainly by from 2,000 to 2,500 chests. Again, the probable shipments to the end of the year are certainly placed at too moderate a limit; consequently, we may anticipate a larger stock on hand at the close of the year than 8,741 chests. If other nations were buying largely in the Indian market, we could easily understand that a portion of our usual importations would be cut off; but when we find a positive deficiency in the shipments to various quarters, it is difficult to understand upon what principle we can safely contend for higher quotations. In 1857-58 America took direct 806 chests; in 1858-59 the quantity was 1,868; in 1859-60, 1,526; but in 1860-61 it declined to 730 chests. There can be no doubt but that the production of the indigo plant in Bengal has been greatly checked since the commencement of 1861; still, we see nothing in the advices since the beginning of the present year to warrant the belief that the total production will be from 10,000 to 12,000 chests less than the usual average, more especially as the sowings have progressed satisfactorily, and as an abundance of rain has fallen in most of the indigo districts.

Whilst several branches of trade in the United Kingdom have suffered severely, it is satisfactory to find the indigo market comparatively healthy. Unquestionably the production in the East of late years has not kept pace with the consumption, and even additional supplies from other sources are not likely to fill up the vacuum caused by dissensions in India between the cultivators and the owners of land. The differences now

chiefly consist of a desire on the part of the latter to obtain a larger revenue from the soil than it will yield; hence, we find that in Bengal alone, a number of persons have been dispossessed of land hitherto held by them as yearly tenants for a considerable period. We are aware that the produce of the East is selling at high prices in this country; but if the cultivators are to be driven from the soil because they refuse to pay higher rents, we shall unquestionably lose the benefit which usually results from moderate patches of land being divided for individual exertion. The experiment has been often tried, and as often failed, in England, and we regret to find that the landowners in the East should endeavor to realize larger incomes from a system of extensive cultivation on their own account. India has passed through a period of depression and excitement, from which she is now rapidly recovering; but a falling off in the quantity of produce raised may lead to further complications of an unfavorable character. As regards the supply of indigo, however, this season, we have every reason to anticipate a full average quantity. To secure its early arrival here, some shippers are negotiating for the transmission of the article via the Red Sea. The additional cost by that route will be 3d. per pound, but it is supposed that it will be nearly made up by a gain in interest and a decrease in risk. That the value of indigo is likely to rule firm during the remainder of the year, is evident from the general bearings of the trade, and the steady consumption both here and on the Continent; but we cannot subscribe to the opinion that the quotations are likely to be much above their present level.

HUNGARIAN WINES.

A report on Hungarian wines by Mr. DUNLOP, attaché to the British Embassy, has just been included among some papers presented to Parliament. On the question whether wines from Hungary can be imported into England at a cheaper rate than wines from France it throws some interesting light. As to the capability of the country for producing almost any quantity there seems no doubt; but the absence of care, method, and discrimination is still such as seriously to counteract the existing natural advantages. The Hungarian farmers and proprietors, however, it is said, are now awakening to the fact that, although they have about the largest and best district in Europe for wine growing, and unlimited quantities of nearly the best grapes for the purpose, they continue to make, on the whole, very bad wines for exportation—far inferior in quality and flavor to those which, with ordinary modern appliances, might be manufactured throughout the country, and much smaller in quantity than their extensive vine-farms could easily produce. The Hungarians, it appears, thoroughly understand the culture and management of the grape previously to the vintage, but their whole subsequent system is “careless, wasteful, rude, and defective.” The formation of a wine association has been suggested to correct these evils, but the remedy seems open to each individual, since the introduction of proper methods would involve but little expense in new machinery. The estimates of the annual quantity of wine produced in Hungary are rather vague. Mr. DUNLOP thinks it may amount to 390,000,000 English gallons, which, after allowing for the home consumption, would leave about 100,000,000 for exportation.

Of this, about two-thirds are white and one-third is red, and Mr. DUNLOP considers it is "no exaggeration to state, that if Hungary once saw a clear way open for the export of her wine, she would make planting arrangements to supply any demand within the bounds of probability from foreign markets, and would equally increase her care and attention as to the qualities required." Railway facilities would also be essential, and it is believed that if a line which was planned many years ago from Pesth to Fiume, and which was rejected by the Vienna authorities, because it did not harmonise with their "strategic absurdities," had been carried out, the present exports of Hungary would have been double what they are, and the export of wine much more than double. The impression is, that if there were a direct communication between Hungary and Great Britain *via* the Adriatic, "the people of England would be able to have an imperial pint of good Hungarian wine at from 4d. to 7d. sterling." Mr. DUNLOP considers that the time has arrived when English merchants and capitalists should direct special attention to the capabilities of this trade. Hitherto the Hungarians have devoted too much care to the production of "curious" and liqueur descriptions, but to develop the real powers of the country, they should, it is contended, devote all their energies to the culture and improvement of their strong, dry, clean wines, and study by all means to fit them for the foreign market, by carefully assorting their grapes, and by manipulating the wines at home as the Spaniards do their sherries. If the English middle and lower classes do not take to the light acid French wines, they would certainly, it is observed, become large consumers of the dry, strong-bodied, clean Hungarian wines, especially white wines, and these could be supplied to them cheaper than sherries from Cadiz. The strong red wine, resembling Burgundy, which might also be largely made in Hungary, would, it is added, perfectly suit the English market.

THE LUMBER TRADE OF CANADA.

The following table, given by GEORGE H. POOY, Esq., in a lecture delivered by him at Ottawa, March 18, 1862, shows the quantity of lumber and deals exported from Quebec to the United Kingdom for fifteen years:

	Sq. timber, c. ft.	Deals.	Total.
1845.....	24,223,000	6,879,617	31,102,617
1846.....	24,242,689	5,655,186	29,893,675
1847.....	19,060,880	7,112,963	26,173,843
1848.....	17,402,360	6,514,083	23,916,443
1849.....	18,581,560	6,648,746	25,230,306
1850.....	19,534,320	6,465,623	25,999,943
1851.....	22,210,080	4,507,133	26,717,213
1852.....	20,361,960	4,600,534	24,961,894
1853.....	22,129,120	7,054,838	29,183,958
1854.....	25,346,800	7,966,958	33,313,758
1855.....	15,389,774	5,512,500	20,702,274
1856.....	19,409,162	7,431,790	26,740,042
1857.....	24,995,750	10,521,041	35,516,801
1858.....	17,571,240	10,160,475	27,731,715
1859.....	19,115,360	9,291,594	28,406,954

The average quantity produced is about 80,000,000 cubic feet square timber, and 400,000,000 feet board measure, equal 34,000,000 cubic feet sawn lumber, altogether 64,000,000 cubic feet per annum. The duties levied in Canada on square timber cut on crown lands, is $\frac{1}{2}$ d. per cubic foot, and on saw logs 5d. currency per log, without reference to size. No duty is imposed on timber cut on *private lands*.

In the year 1845 the export from Quebec formed 32 per cent of the imports to the United Kingdom; in 1846, 29 per cent; 1847, 28 per cent; 1849, 31 per cent; 1851, 25 per cent; 1852, 24 per cent; 1854, 27 per cent; 1855, 22 per cent; 1856, 22 per cent; 1857, 28 per cent; 1858, 25 per cent; 1859, 21 per cent. This falling off of 11 per cent on the whole trade is due to the increase of importation from the Baltic, consequent on the withdrawal of a protective duty.

The whole imports of the United Kingdom, in the year 1859, were, as computed from the Board of Trade tables, 1,300,000 loads of 50 cubic feet each, of colonial; and 1,300,000 loads of foreign timber, making a total of 130,000,000 cubic feet, of which Canada furnishes about 24 per cent; the tonnage would be probably equal to 3,000,000 tons, of which we furnish probably 750,000; of this, fully 600,000 tons are the produce of the Ottawa country, and the trade there is carried on more extensively than in any part of the British Empire.

According to the best possible estimate, this trade employs 15,000 men in the woods; and counting those engaged in the various operations of the manufacturing establishments, 10,000 more, so that a total of 25,000 men are engaged in this traffic, on the Ottawa River. The yearly consumption of provisions, by the producers of square timber, is stated to be 12,000 barrels of pork, 15,000 barrels of flour, some 100 tons of sundries, 6,000 tons of hay, and 275,000 bushels of oats; and the same quantity of provisions is required for the production of saw logs; so that something like 26,000 tons of agricultural produce is required for the purposes of this trade.

The trade returns for 1859 give the amount of seamen required to man the fleet which takes the lumber destined for European markets from Quebec, at 17,064; to those must be added the men engaged on our inland navigation, in transporting same lumber to the States, and the total number of seamen employed will not fall far short of 25,000 men.

The revenue collected the past eleven years from the lumber trade is as follows:

	Slide dues.	Ground rent.	Saw logs.	Revenue collected on the Ottawa.
1851.....	\$23,554	\$7,060	\$8,070	\$110,998
1852.....	29,912	10,969	13,725	143,351
1853.....	28,844	14,544	18,838	148,080
1854.....	28,888	19,686	26,403	184,718
1855.....	28,450	22,215	19,143	150,368
1856.....	32,269	24,414	19,221	167,313
1857.....	35,934	21,113	23,278	197,514
1858.....	27,936	22,119	21,162	156,800
1859.....	33,724	19,667	34,007	182,850
1860.....	44,417	22,904	44,147	203,540
1861.....	49,660	10,008	42,474	219,533

THE SUPPLY OF COTTON.

In a circular just issued by Messrs. NEILL BROTHERS, of Manchester, the downward progress of the stocks of American cotton since the highest point of last year, is illustrated roughly by the following quarterly table, to which is appended the Liverpool quotation for middling New Orleans cotton at the respective dates :

	1861.				1862.	
	March.	June.	Sept.	Dec.	March.	May.
In American ports.....	750,000	100,000	50,000	30,000	30,000	29,000
Afloat and at Liverpool.....	918,000	971,000	487,000	240,000	160,000	108,000
Total.....	1,668,000	1,071,000	587,000	270,000	190,000	128,000
Price of middling.....	7½d.	8d.	9½d.	11d.	12½d.	12½d.

There is, moreover as large a decrease proportionately in the stocks held in the continental ports and by spinners everywhere. The vacuum caused by the non-receipt of the last crop is thus at last showing itself seriously, in spite of the great reduction in consumption, which has occurred here and elsewhere. At Havre the present stock is 42,000 bales, against 290,000 last year. "For so far it is to be regretted," observed Messrs. NEILL, "that the high scale of prices which has prevailed this season has failed to attract an increase of supplies from other quarters. India seems to have been cleared out by the large shipments of last year, and the shipments to Europe from 1st January till latest dates show a decrease of 100,000 bales, the figures being 251,000 bales against 351,000 last year. Hence, and from the large proportionate consumption of Surat cotton, the stock at Liverpool of this description, which on the 1st of January last stood at 295,000 bales against 120,000 last year, is now reduced to 170,000 against 133,000 last year, while in the quantity afloat the figures are still more unfavorable—namely, 164,000 bales against 258,000. From Egypt, Brazil, etc., there is a large per centage of increase in the import for so far this year, but the positive increase is not sufficient to be seriously felt in the trade. The figures are 159,000 bales against 97,000 last year. In looking to the future, it would be vain to attempt predictions of the course of prices. In the present state of stocks, any considerable demand, such as the indications from the Indian and other markets would seem to point to, might seriously force up prices. On the other hand, further Federal successes, such as there is every reason to anticipate, or the arrival of even a very few bales of cotton from the South, would, with equal certainty, at least temporarily depress them. Upon a broad view, however, of the enormous difficulties which stand in the way of any satisfactory reopening of the American sources of supply, and the long delays which must occur before the complicated machinery of the trade is again readjusted, even if terms of peace were already agreed upon, the present price of cotton cannot be considered unreasonably high."

JOURNAL OF BANKING, CURRENCY, AND FINANCE.

1. CITY WEEKLY BANK RETURNS, NEW YORK CITY BANKS, PHILADELPHIA BANKS, BOSTON BANKS, PROVIDENCE BANKS. 2. WEEKLY STATEMENT BANK OF ENGLAND. 3. STATE BANK OF IOWA. 4. WISCONSIN BANKS. 5. OHIO BANKS. 6. THE DEBT OF EUROPEAN NATIONS.

CITY WEEKLY BANK RETURNS.

NEW YORK BANKS. (*Capital, Jan., 1862, \$69,493,577; Jan., 1861, \$69,890,475.*)

Date.	Loans.	Specie.	Circulation.	Net Deposits.	Weekly Clearings.
January 4,.....	\$154,415,826	\$23,983,878	\$8,566,186	\$111,789,238	\$100,642,429
" 11,.....	152,088,012	25,878,070	8,121,512	118,889,762	105,684,811
" 18,.....	149,081,433	26,120,859	7,869,028	118,327,160	107,732,780
" 25, ...	145,767,680	26,698,728	6,828,017	110,874,786	100,001,959
February 1,.....	144,675,778	27,479,583	6,404,951	112,057,008	93,791,629
" 8,.....	143,803,890	28,196,666	6,077,417	110,687,557	113,216,297
" 15,.....	141,994,192	28,114,148	5,762,506	110,480,475	105,102,177
" 22,.....	139,950,958	28,875,992	5,489,496	109,079,076	111,846,066
March 1,.....	137,674,238	29,826,959	5,363,944	107,974,499	109,864,823
" 8,.....	135,055,148	30,436,644	5,869,206	108,715,728	113,512,576
" 15,.....	130,622,776	30,773,050	5,904,866	100,296,704	118,957,978
" 22,.....	127,615,806	32,023,890	6,260,809	97,601,279	115,376,881
" 29,.....	125,021,630	32,841,802	6,758,318	94,428,071	106,978,432
April 5,.....	124,477,484	33,764,382	7,699,641	94,082,625	111,386,384
" 12,.....	123,412,491	34,594,668	8,004,843	93,759,068	114,738,013
" 19,.....	123,070,263	34,671,528	8,064,663	95,179,840	118,529,377
" 26,.....	125,086,825	35,397,944	8,118,571	101,897,435	124,396,733
May 3,.....	123,406,418	35,175,828	8,482,782	109,634,535	140,952,471
" 10,.....	138,948,211	32,239,868	9,880,321	115,559,206	181,113,537
" 17,.....	142,290,782	30,260,697	8,727,328	120,003,929	167,391,055
" 24,.....	142,950,149	30,672,760	8,592,676	122,602,864	142,828,565
" 31,.....	142,671,414	31,897,284	8,535,149	125,484,755	186,893,373
June 7,.....	142,318,381	31,248,882	8,818,603	125,666,961	148,123,103
" 14,.....	144,014,350	31,162,048	8,814,322	125,643,875	165,521,454
" 21,.....	146,839,762	31,047,945	8,849,183	126,684,422	168,059,997

PHILADELPHIA BANKS. (*Capital, Jan., 1862, \$11,970,130.*)

Date.	Loans.	Specie.	Circulation.	Deposits.	Due to banks.	Due from banks.
Jan. 6,...	\$31,046,537	\$5,688,728	\$2,145,219	\$21,396,014	\$3,645,956	\$1,796,805
" 13,...	31,145,938	5,692,123	2,162,152	21,324,510	3,492,952	1,702,716
" 20,...	30,601,160	5,733,450	2,120,756	20,698,496	4,120,261	1,575,116
" 27,...	30,385,606	5,821,323	2,121,146	20,058,098	4,209,006	1,358,688
Feb. 3,...	30,385,319	5,884,011	2,144,393	20,068,890	4,572,872	1,707,136
" 10,...	29,974,700	5,923,874	2,191,547	19,032,535	4,890,288	1,587,481
" 17,...	29,388,544	5,849,354	2,191,512	18,692,183	4,661,442	2,052,081
" 24,...	29,280,049	5,867,686	2,230,605	18,777,800	5,205,203	1,935,414
Mar. 3,...	29,393,356	5,881,108	2,343,493	18,541,190	5,218,383	1,828,333
" 10,...	28,088,499	5,864,780	2,575,503	17,375,771	5,131,334	1,733,169
" 17, ..	28,723,835	5,897,391	2,632,627	17,253,461	5,342,876	1,649,137

Date.	Loans.	Specie.	Circulation.	Deposits.	Due to banks.	Due from banks.
" 24,...	28,860,615	5,915,535	2,707,804	17,066,267	5,210,365	1,774,162
" 31,...	27,831,333	5,884,314	2,904,542	17,024,198	5,100,186	2,134,392
April 7,...	28,087,691	5,886,424	3,378,970	16,636,538	5,607,488	2,231,889
" 14,...	28,076,717	5,912,870	3,496,420	18,112,446	4,868,942	2,634,171
" 21,...	28,246,733	6,046,260	3,525,400	19,011,833	4,548,327	2,504,147
" 28,...	28,798,116	6,062,827	3,613,994	20,223,556	4,470,674	3,128,069
May 5,...	29,624,482	6,049,685	3,769,692	21,316,614	4,631,837	3,823,659
" 12,...	29,966,347	5,728,028	3,867,200	23,002,263	5,118,541	4,981,291
" 19,...	31,121,563	5,529,221	4,045,696	23,385,009	5,597,984	4,804,956
" 26,...	31,583,603	5,587,012	4,166,055	23,973,478	5,472,615	5,120,902
June 2,...	31,747,070	5,583,482	4,335,013	24,884,644	5,378,322	5,372,748
" 9,...	31,951,715	5,632,807	4,354,599	24,973,011	5,161,280	5,355,034
" 16,...	32,132,654	5,630,503	4,298,023	24,807,057	5,036,828	5,396,328

BOSTON BANKS. (Capital, Jan., 1862, \$38,231,700; Jan., 1861, \$38,231,700.)

Date.	Loans.	Specie.	Circulation.	Deposits.	Due to banks.	Due from banks.
Jan. 6,...	\$65,612,397	\$8,920,486	\$6,451,687	\$27,093,839	\$9,187,924	\$8,701,373
" 13,...	64,704,039	8,580,607	6,612,512	25,642,994	9,634,227	8,805,255
" 20,...	64,409,585	8,585,277	6,549,871	25,441,327	9,547,319	9,018,388
" 27,...	63,025,191	8,562,175	6,284,268	24,030,776	9,593,545	8,727,348
Feb. 3,...	62,628,793	8,529,483	6,260,299	23,500,321	9,727,783	8,766,415
" 10,...	62,340,600	8,514,600	6,616,000	23,684,700	9,892,600	8,965,500
" 17,...	62,587,788	8,410,890	6,469,309	22,034,794	9,653,725	8,315,887
" 24,...	62,063,640	8,341,588	6,580,205	21,515,228	9,625,369	8,644,360
Mar. 3,...	61,878,500	8,364,500	6,318,700	21,203,500	9,681,500	8,982,600
" 10,...	61,834,500	8,409,535	6,693,139	20,740,208	9,906,110	8,460,721
" 17,...	61,747,000	8,471,000	6,364,800	20,554,000	9,790,000	7,981,000
" 24,...	61,655,420	8,441,058	6,219,512	20,326,087	9,715,256	7,669,531
" 31,...	61,360,789	8,441,196	5,908,272	19,975,018	9,434,782	6,978,527
Apr. 7,...	61,208,974	8,674,170	6,557,152	21,014,000	9,245,088	8,133,124
" 14,...	61,058,969	8,688,673	6,170,883	21,009,010	8,949,259	7,173,374
" 21,...	61,019,787	8,679,356	5,924,906	21,670,017	8,529,277	6,946,164
" 28,...	60,441,452	8,666,797	5,500,396	22,402,134	8,493,004	7,313,520
May 5,...	59,805,545	8,593,990	5,453,815	23,323,199	8,655,206	9,898,508
" 12,...	59,521,251	8,422,788	5,537,937	24,327,121	9,197,744	11,755,589
" 19,...	60,059,685	8,304,534	5,602,344	25,792,916	9,614,737	13,105,350
" 26,...	60,266,276	8,108,695	5,603,756	26,264,656	10,029,198	13,795,636
June 2,...	60,677,367	8,089,723	5,343,138	26,730,486	10,226,491	13,924,896
" 9,...	62,059,198	7,983,425	5,696,413	26,277,021	10,610,702	12,888,043
" 16,...	62,691,341	7,894,899	5,875,612	25,602,048	10,332,170	11,884,692

PROVIDENCE BANKS. (Capital, Jan., 1862, \$15,454,600.)

Date.	Loans.	Specie.	Circulation.	Deposits.	Due to banks.	Due from banks.
Jan. 11,	\$19,356,800	\$403,700	\$1,889,600	\$3,054,600	\$1,099,300	\$915,400
" 18,	19,238,700	402,900	1,890,300	2,899,200	1,071,500	893,500
" 25,	19,160,600	394,700	1,766,500	2,899,600	959,400	1,057,400
Feb. 1,	19,160,600	394,700	1,811,100	2,960,500	971,800	923,500
" 8,	19,087,700	395,900	1,814,300	2,915,200	900,400	994,700
" 15,	19,109,400	394,800	1,784,000	2,762,200	911,100	1,081,000
" 22,	18,869,800	396,800	1,879,100	2,792,700	893,900	1,180,000
Mar. 1,	18,920,500	407,500	1,791,200	2,924,400	933,900	1,233,000
" 8,	18,953,900	405,100	1,973,500	3,030,600	1,131,500	1,598,800
" 15,	18,998,600	408,500	1,848,100	2,946,800	1,103,200	1,434,300
" 22,	19,148,400	408,800	1,879,200	3,060,900	1,085,000	1,407,700
" 29,	19,360,500	411,800	1,857,100	3,078,800	1,021,000	1,165,400

Date.	Loans.	Specie.	Circulation.	Deposits.	Due to banks.	Due from banks.
Apr. 5,	19,641,000	417,500	2,102,000	3,124,000	1,115,500	1,063,200
" 12,	19,719,200	416,600	2,086,800	3,017,700	1,081,000	894,800
" 19,	19,644,500	408,600	1,958,400	3,015,900	1,020,400	845,400
" 26,	19,620,300	413,700	1,877,200	3,123,500	948,400	961,200
May 3,	19,528,410	417,378	1,979,828	3,134,601	950,480	1,156,072
" 10,	19,070,200	410,300	1,969,400	3,164,700	1,132,500	1,714,400
June 7,	19,236,100	395,600	2,016,600	3,342,400	1,653,000	2,101,900
" 14,	19,641,600	388,500	2,182,700	3,274,600	1,666,500	1,818,200
" 21,	19,827,500	385,500	2,324,900	3,153,600	1,627,500	1,744,400

BANK OF ENGLAND.

WEEKLY STATEMENT.

Date.	Circulation.	Public Deposits.	Private Deposits.	Securities.	Coin and Bullion.	Rate of Discount.
Jan. 1 . . .	£20,818,190	£7,345,883	£15,036,062	£30,419,780	£15,961,439	3 pr. ct.
" 8 . . .	21,086,675	4,542,974	18,206,488	31,022,505	16,046,017	2½ "
" 15 . . .	21,460,925	4,588,353	16,480,452	29,509,834	16,291,624	2½ "
" 22 . . .	21,697,928	5,467,340	15,366,081	29,464,720	16,359,939	2½ "
" 29 . . .	21,183,376	5,753,063	14,751,486	28,696,456	16,280,369	2½ "
Feb. 5 . . .	21,427,554	5,788,441	14,179,917	28,834,352	15,956,903	2½ "
" 12 . . .	21,236,312	4,884,989	15,526,334	29,010,241	16,042,949	2½ "
" 19 . . .	20,772,726	5,397,144	15,085,843	28,771,812	15,894,405	2½ "
" 26 . . .	20,786,715	5,762,849	14,939,742	29,024,962	15,749,065	2½ "
Mar. 5 . . .	21,217,246	6,755,287	13,737,507	29,692,441	15,673,393	2½ pr. ct.
" 12 . . .	20,013,685	7,527,911	13,763,718	29,489,795	16,027,111	2½ "
" 19 . . .	20,438,509	8,011,694	13,340,928	28,953,089	16,543,586	2½ "
" 26 . . .	20,814,655	8,413,275	13,164,258	29,140,207	16,812,798	2½ "
April 2 . . .	21,501,595	8,456,468	13,622,532	30,398,790	16,849,198	2½ "
" 9 . . .	21,822,103	5,625,314	16,336,169	29,981,793	16,881,940	2½ "
" 16 . . .	22,048,463	5,225,132	15,710,260	29,825,838	16,743,434	2½ "
" 23 . . .	21,655,553	5,534,973	15,915,247	29,022,128	17,172,204	2½ "
" 30 . . .	21,946,997	6,667,375	14,357,007	29,164,075	17,089,446	2½ "
May 7 . . .	21,752,384	7,503,991	13,868,648	28,961,214	17,265,745	2½ "
" 14 . . .	21,618,780	6,304,683	14,948,303	29,076,079	16,919,147	2½ "
" 21 . . .	21,539,430	6,557,311	14,567,471	29,433,044	16,344,940	3 "
" 28 . . .	21,265,561	6,937,808	14,685,087	29,824,704	16,178,815	3 "
June 4 . . .	21,515,263	7,518,007	13,188,136	29,341,864	15,489,723	3 "
" 11 . . .	21,329,641	8,325,516	13,156,662	31,396,492	15,036,100	3 "

STATE BANK OF IOWA.

The State Bank of Iowa has just published its consolidated statement for the quarter ending May 10, 1862. The statement shows that the branches are in a healthy and thriving condition. We copy the figures :

ASSETS.		LIABILITIES.	
Safety fund	\$213,258 92	Capital	\$720,245 00
Specie	729,962 85	Circulation	926,901 00
Notes of other banks .	277,513 00	Due other banks and	
Due from other banks .	253,334 21	bankers	27,571 02
Loans and discounts .	1,158,135 76	Deposits	953,026 36
Other items	104,680 64	Other items	99,742 00

This is certainly a very safe and conservative statement.

WISCONSIN BANKS.

The following extracts are taken from the report of Wm. H. RAMSEY, Bank Controller, dated May 31 :

BANKS WINDING UP, AND REDEEMED IN GOLD AT PAR AT THE BANK CONTROLLER'S OFFICE.

	Time of redemption expires.
Bank of the Capitol.....	Protested
Bank of La Pointe.....	April 19, '63
Bank of Montello.....	Protested
Brown County Bank.....	Feb'y 22, '63
City Bank of Racine.....	Dec. 1, '62
Fox River Bank.....	June 26, '63
Germania Bank.....	Protested
Janesville City Bank.....	Protested
Kokomo Bank.....	Protested
Marine Bank.....	April 18, '63
Merchants' Bank.....	April 22, '64
Merchants' and Mechanics' Bank.....	Protested
Northern Wisconsin Bank.....	July 22, '62
Oshkosh City Bank.....	Protested
Second Ward Bank.....	Not advertised
Union Bank.....	Not advertised

The time of redemption of the following banks has expired, but the controller will continue to redeem the circulation until the withdrawal of the securities, which may at any time be done :

	Time expired.
Farmers' Bank of Hudson.....	May 6, 1862
People's Bank.....	May 12, 1862

BANKS WINDING UP AND REDEEMED AS FOLLOWS :

	Cents.		Cents.
Bank of Albany.....	73 $\frac{3}{4}$	Mercantile Bank.....	79 $\frac{1}{2}$
Bank of Appleton.....	61 $\frac{3}{4}$	Oconto County Bank.....	75
Bank of Beaver Dam.....	57 $\frac{1}{2}$	Osborn Bank.....	65
Bank of Eau Claire.....	84	Portage County Bank.....	70 $\frac{3}{4}$
Bank of Fond du Lac.....	68 $\frac{3}{4}$	Reedsburg Bank.....	75 $\frac{1}{2}$
Bank of Portage.....	78	Southern Bank.....	70 $\frac{1}{2}$
Beloit Savings Bank.....	46 $\frac{1}{2}$	Tradesmen's Bank.....	51
Dodge County Bank.....	69	Waupun Bank.....	80
Hall & Brother's Bank.....	63	Waushara County Bank....	73 $\frac{1}{2}$
Koshkonog Bank.....	54 $\frac{3}{4}$	Winnebago County Bank...	57
Mechanics' Bank.....	62 $\frac{1}{2}$	Wisconsin Valley Bank....	77

The bonds of the following States have been decreased since statement of April 30, 1862, as follows :

Illinois 6s.....	\$3,750 00
Ohio 6s.....	2,000 00
Missouri 6s.....	2,000 00

Total..... \$7,750 00

Since statement of April 30, 1862, the following stocks have been increased :

United States 6s.....	\$3,000 00
Wisconsin 6s.....	21,200 00
Total.....	\$24,200 00

The circulation has been increased during the last month.....	\$21,483 00
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The whole amount of circulation outstanding is :

Par banks.....	1,738,352 00
Discredited banks.....	198,221 00
Winding up banks.....	54,249 00
Total.....	\$1,990,822 00

Secured as follows :

United States 6s....	\$47,000 00	Kentucky 6s.....	6,000 00
“ 5s....	3,000 00	Tennessee 6s.....	50,000 00
“ 12s....	1,000 00	Missouri 6s.....	157,000 00
“ 7.30s....	2,000 00	Virginia 6s.....	9,000 00
New York 6s.....	3,000 00	North Carolina 6s...	53,000 00
Wisconsin 6s.....	1,056,900 00	Georgia 7s.....	6,000 00
Iowa 7s.....	18,000 00	“ 6s.....	500 00
Minnesota 8s.....	71,000 00	Louisiana 5s.....	1,000 00
Illinois 6s.....	265,620 00	“ 6s.....	15,000 00
Indiana 2½s.....	15,000 00	Mil. & Wat. R. R. 8s.	50,000 00
“ 5s.....	28,000 00		
Michigan 6s.....	137,500 00		\$2,112,120 00
“ 7s.....	1,000 00	Specie.....	92,088 59
Ohio 6s.....	50,600 00		
California 7s.....	65,000 00	Total.....	2,204,208 59

All the discredited banks except the Arctic and State Stock, have failed to answer or demur to the complaint of the Attorney-general, and they will doubtless be closed up within the next forty days ; the Arctic and State Stock banks will probably require thirty days longer.

OHIO BANKS.

The auditor's quarterly returns for May show fifty-three banks in Ohio, viz. : Six independent banks, eleven free banks, and thirty-six branches of the State Banks.

Amount of capital of branches.....	\$4,091,700
Independent and free.....	1,454,450
Whole amount paid in.....	\$5,546,150

Amount of circulation	\$9,736,757
Amount of deposits.....	5,898,275
Reserved and contingent fund.....	910,800
Specie.....	3,783,984
Eastern deposits.....	1,704,013
Notes of United States and other banks.....	2,210,486
Notes and bills discounted.....	11,009,632
State stocks, United States stocks, and bonds and mortgages	2,877,283

The City Bank, Columbus, and Forest City Bank are in liquidation.

THE DEBT OF EUROPEAN NATIONS.

We condense from the London *Economist* the essential facts in relation to the indebtedness of the principal nations of the Old World, which go to show that the United States, even after the immense expenditure required for the preservation of its nationality, will be far behind the contemporaneous governments in the matter of a large debt. We have turned the pounds sterling into our own currency at the rate of five dollars to the pound, which is near enough for the purposes of this article. The amount, however, will not be strictly accurate.

THE DEBT OF GREAT BRITAIN.

In the article from which we quote, the debt of India, part of Great Britain virtually, is separately given, and the writer confesses that "if Austria had boasted of a surplus, and if Hungary had been getting deeper and deeper into debt, we should have vigorously contended that the accounts of the provinces and the accounts of the empire must be considered together."

The following is the debt of England itself:

DECEMBER 31, 1847.		DECEMBER 31, 1861.	
Funded debt....	\$3,862,009,255	Funded debt....	\$3,922,100,035
Unfunded debt..	89,732,500	Unfunded debt..	77,649,000
Total.....	\$3,951,741,755	Total.....	\$3,999,749,035

The following is the debt of India :

At the date of the last published returns, being Dec. 31, 1860, for English debt,		In India.	In England.
April 30, for India.....		\$386,451,225	\$148,374,950

which is an augmentation of England's debt of about \$235,000,000.

This does not include any liabilities of the Indian government or railway guarantees.

The debt of England is \$4,237,820,300.

DEBT OF FRANCE.

	1852.	1861.
Funded debt of France.....	\$1,103,288,920	\$1,943,655,380

making an expenditure in ten years of over \$840,000,000 more than its income. France never has a surplus. In the year 1858, which was not affected by the Crimean war or by the Italian war, and in which the revenue of France was greater than it had ever been before or since, the account stood:

Expenditures	\$371,800,000
Revenue	349,600,000
Deficit	\$22,200,000
Between 1851 and 1860 (inclusive) the expenditure of France has been...	\$3,842,600,000
The revenue amounted to	3,098,400,000
Aggregate deficit.	\$744,200,000

DEBT OF AUSTRIA.

Austria never has a surplus. The governments of Europe have generally a habit of spending a good deal more than their income, and borrowing to supply the deficit.

Average revenue for four years, 1857-60	\$144,375,000
Average expenditure	197,750,000
Average annual deficit.	\$53,375,000
Total national debt, April, 1860	\$1,468,000,000
To which has since been added over...	55,000,000

Last year Austria spent \$44,500,000 over and above her income.

DEBT OF ITALY.

Italy is added to the list of countries whose finance is likely to press on the money market for a time. The total debt is \$411,276,710. This is not much for a nation of her resources, but the excess of expenditure over revenue in the year 1861—the sum which she had to borrow—was but little short of \$63,000,000, and this with a total revenue of but \$98,000,000.

DEBT OF RUSSIA.

Of Russia we have not a very authentic account of her revenue and expenditures for the last few years. She has lately come into the market for a loan, and probably shares the want of money with the other nations and "the rest of mankind." By the Authority of M. OGAREFF, in a book recently published, the debt is stated as follows, and this is probably an approximation to the truth, if not the correct figures. The total debt in 1861, was \$412,050,000. The statement in this book would also make it appear that Russia, during the year 1860, paid off \$26,000,000 of her debt.

COMMERCIAL REGULATIONS.

1. LETTER FROM THE SECRETARY OF THE TREASURY—ADDITIONAL ISSUE OF U. S. TREASURY NOTES. 2. RULES FOR THE REDEMPTION OF TREASURY NOTES. 3. TAXATION OF NATIONAL SECURITIES. 4. TRADE WITH NEW ORLEANS AND MEMPHIS. 5. ACT TO ESTABLISH A BRANCH MINT. 6. AN ACT AUTHORIZING THE REIMBURSEMENT OF STATES FOR MONIES ADVANCED IN ENROLLING, ETC., TROOPS. 7. THE MEXICAN QUESTION.

LETTER FROM THE SECRETARY OF THE TREASURY.

ADDITIONAL ISSUE OF U. S. TREASURY NOTES.

Treasury Department, June 7, 1862.

SIR: The act of July 17, 1861, authorized the issue of \$50,000,000 in U. S. notes, payable on demand, and receivable for customs. This authority was enlarged under the act of February 12, 1862, by the addition of \$10,000,000—making \$60,000,000 in all.

The acts of Feb. 25, and March 17, 1862, authorized temporary deposits in the Treasury at rates of interest not exceeding five per cent, nor for a greater aggregate sum than \$50,000,000. This act of February 25, 1861, authorized the issue of \$150,000,000 in United States notes, provided, however, that the demand notes issued under former acts should be retired and cancelled as rapidly as practicable, and that the aggregate of such notes and of the United States notes to be issued under this act should at no time exceed \$150,000,000. All the notes to be issued were made a legal tender, but none except the demand notes, were made receivable for customs.

Under these laws, \$60,000,000 in demand notes, receivable for customs, have been issued, and \$90,000,000 in notes not so receivable. The aggregate now outstanding is, therefore, \$150,000,000, being the whole amount authorized by law.

Of this aggregate about \$56,500,000 in demand notes are held by banks and capitalists, and not used as circulation, being held at a premium in consequence of their receivability for customs of from $\frac{3}{4}$ to $\frac{1}{2}$ per cent, and about \$3,500,000 are held in the treasury for circulation.

The whole issue of \$60,000,000 in demand notes may thus be regarded as practically withdrawn from circulation. This withdrawal leaves only the issue of \$90,000,000 of United States notes not receivable for customs, increased gradually by the substitution of the notes for the demand notes cancelled, from which conversion into bonds redeemable after five years, and payable in twenty years, called for convenience, five twenties can be expected to be made.

The limit of temporary deposits is now reached, and nothing further can be expected from that source, for so long as the limit shall be maintained, current receipts of such deposits can only be equal to the payments. It is therefore upon the conversion of United States notes into five twenties, now practically limited to the \$90,000,000 of legal tender

notes and upon receipts from customs, that the treasury must depend, under existing legislation, for means to meet current expenditures.

No safe reliance can be placed on conversions, so far as experience has afforded any grounds of estimate, for more than \$150,000 daily, and the daily average revenue from customs during the past month has been about \$230,000. The aggregate daily receipts from both these sources, therefore, cannot be estimated at more than \$380,000, may very possibly fall short of that sum, while the average daily expenditures cannot be estimated at less than \$1,000,000, and will probably, unless very considerable retrenchments are made, exceed that sum.

I therefore propose the removal of the restriction upon temporary deposits. The plan of receiving them has worked well, and is likely to continue to work well in future. The rate of interest, limited to five per cent by law, has been reduced to four by my direction, and it is not proposed to increase it unless some exigency shall make the increase necessary.

The amount of deposits at four per cent now exceeds \$9,000,000, and will become steadily larger if the restriction be removed. Payments will, of course, be frequently required, but the pressure must be very great which will reduce the receipts below them, while, in ordinary times, the latter will constantly exceed the former. It may indeed become practicable to reduce the rate of interest even below 4 per cent, with advantage. Whatever the rate allowed, the average excess of deposits above reimbursements will constitute a loan to the government at that rate. In order to retain the average excess at this maximum, it may be well to provide by law that, of the United States notes hereafter authorized to be issued, there shall be always reserved in the treasury, or from issue, an amount of not less than one-third the amount deposited.

Such a provision would make the treasury the best of savings banks and by its guaranty of prompt payment under all circumstances insure the highest confidence, and augment to its maximum the flow of deposits. I estimate the amount of loan likely to be made to the Government at 4 per cent or less, in this form, at not less than \$20,000,000, in addition to the \$50,000,000 already deposited.

I propose also that authority be given to the Secretary of the Treasury to issue \$150,000,000 in United States notes, in addition to the issue already authorized, and that these be made a legal tender for debts, except interest on loans, and receivable in payment of all loans to the United States for all government dues except duties on imports and interest.

If this authority be given, the proposed reserve of an amount, say \$34,000,000, not less than one-third the temporary deposits, and the replacement of that portion of the \$60,000,000 of demand notes, say \$56,500,000, now practically withdrawn from circulation and held for payment of customs, will require for the present at least say \$90,500,000 of the proposed additional issue, leaving as an actual present addition to the resources of the Government only \$59,500,000.

This amount, however, gradually increased as it will be by the retirement of the demand notes, will be paid in for public dues, and the replacement of them by other United States notes will probably suffice for all demands, which cannot be met from conversions and from customs.

If Congress shall see fit to authorize the additional emission proposed,

it seems highly expedient that such part as the public convenience shall require be issued in denominations less than \$5.

I am aware of the general objection to the issue of notes under \$5, and concede their cogency. Indeed, under ordinary circumstances they are unanswerable; but in the existing circumstances of the country they lose most if not all their force. The country is involved in the expenditures of a contest for national existence, and it is highly desirable that the burdens of the people be made as tolerable as possible.

If the restriction on the issue of small denomination be removed, the wants of the country will absorb a circulation of \$25,000,000, and perhaps more. The interest on this circulation, say \$1,500,000 a year, will be saved to the tax-payers.

Payments to public creditors, and especially to soldiers, now require large amounts of coin to satisfy fractional demands less than \$5. Great inconveniences in payment of the troops are thus occasioned. With every effort on the part of the treasury to provide the necessary amount of coin, it is found impracticable always to satisfy their demands.

When the amount required is furnished the temptation to disbursing officers to exchange it for any small bank-notes that the soldiers or the public creditors will take, is too great to be always resisted. And even when the coin reaches the creditors it is seldom held, but passes, in general, immediately into the hands of sutlers and others, and disappears at once from circulation. The inconveniences, therefore, to the government and creditors, from the absence of United States notes of small denominations, are not compensated by anybody.

It may properly be further observed that, since the U. S. notes are made a legal tender and maintained nearly at par of gold by the provision for the conversion into bonds, bearing six per cent interest, payable in coin, it is not easy to see why small notes may not be issued as safely as large ones.

The notes made a legal tender circulate as money, and the government may authenticate by device and imprint small notes, as well as small coins. The limit is to be found only in public convenience, which it dictates denominations in notes similar to denominations on gold, leaving the small circulation of silver (less valuable than gold) as before.

Another consideration which deserves to be taken in the account is this, that resumption of payments in specie can be more certainly and easily effected, and with far less inconvenience and loss to the community if the currency, small as well as large, is of United States notes, than if the channels of circulation are left to be filled up by the emissions of non-specie paying corporations, solvent and insolvent.

These considerations of economy of public advantage and of private convenience seem to me to justify fully the removal of the restriction upon the issue of small notes.

I propose, further, to make arrangement for the necessary engraving and other work for the printing and preparation for the issue of these notes in the Treasury Department at Washington. I am led to believe that a very considerable reduction of expense can be thus effected. The prospect, in my judgment, certainly warrants the trial.

With these objects I have prepared a bill which I propose to submit to the consideration of the committee. The condition of the treasury renders prompt action highly desirable, and I trust it is not necessary to

assure the committee or Congress that should the powers asked for be granted, they will be exercised only with the most careful reference to the requirements of the public interest.

Whatever the authority granted may be, no issue of notes will be made except to replace notes withdrawn and cancelled, and to meet the current expenditures authorized by Congress, which cannot be met from the receipts of revenue, from the increase of deposits, and from the proceeds of the conversion into five twenties. With great respect,

S. P. CHASE, *Sec'y of the Treasury.*

HON. THADDEUS STEVENS, *Ch. Com. of Ways and Means.*

RULES FOR THE REDEMPTION OF TREASURY NOTES.

Treasury Department, Washington, May 18, 1862.

To guard against frauds upon the government, and to secure the just rights of holders, the following rules, for the redemption of United States notes, are hereby established:

RULES.

First. Mutilated notes, which have been torn, no matter how much, but of which it is evident that all the fragments are returned; or defaced, no matter how badly, but certainly satisfactorily genuine, will be redeemed at their full face value on presentation.

Second. Fragments of notes will be redeemed in full only when accompanied by an affidavit, stating the cause and manner of the mutilation, and that the *missing part of the note is totally destroyed*. The good character of the affiant must, also, be fully vouched for by the officer before whom the affidavit is taken.

Third. In the absence of such affidavit, fragments of notes will not be paid in full, but the parts presented will be redeemed in their proportion to the whole note; reckoning, as a general rule, by twentieths.

Fourth. Less than half of a note will not be redeemed except by payment of the full value of the note under the second rule; or by the payment of the proportional value of the missing part, when presented under the fifth rule.

Fifth. Fragments of notes for which less than the full face value has been paid will be retained for a year, to the end, that the owners, who have received less than the value of a full note, may have opportunity to return the missing part and receive the amount previously withheld.

Sixth. Until further order, mutilated notes and fragments will be redeemed only at the Treasury of the United States, at Washington; whither they can be sent, addressed to the "*Treasurer of the United States*," by mail, *free of postage*. A draft on the Assistant Treasurer, at New York, for the amount allowed, will be returned, in the same way, to the address of the person remitting the same.

S. P. CHASE, *Secretary of the Treasury.*

TAXATION OF THE NATIONAL SECURITIES.

The Worcester *Spy* says, that to satisfy the general wish to ascertain if there was any doubt in regard to the promised exemption of the bonds and notes of the United States from State taxation, a letter has been addressed to the Secretary of the Treasury, and in reply to it the following letter has been received :

Treasury Department, June 3, 1862.

SIR: Your letter of the 31st ult., is received, asking a copy of an opinion of the attorney-general upon the liability of the notes and bonds of the United States to municipal and State taxation. And you quote the statement in my appeal in behalf of the national loan as the ground for asking such a copy for public information to those whose subscriptions you received as agent.

My statement was founded on the decision of the Supreme Court of the United States, in the case of *Weston vs. the City Council of Charleston*, reported in 2d Peters, 449, where this question will be found to be elaborately discussed and judicially decided.

Since that time, it seems the Court of Appeals of the State of New York, have ruled that the capital of the banks of that State being subjected to tax under the State laws, a portion of such capital is withdrawn from such taxation by being invested in stocks of the United States. The question has been again brought before the Supreme Court, where it is now pending.

Upon inquiry after the opinion of the attorney-general, to which you refer, I learn that the Board of Brokers of the city of New York addressed a letter to that officer, asking his views upon the ruling of the Court of Appeals, to which he replied, that he had been requested by me to appear in that case before the Supreme Court, and had no doubt but the former decision of that court would be confirmed. I understand it was a mere letter of acknowledgment, and not a formal opinion on the question.

Very respectfully, your obedient servant,

S. P. CHASE, *Secretary of the Treasury.*

STEPHEN SALISBURY, Esq., Worcester, Mass.

TRADE WITH NEW ORLEANS AND MEMPHIS.

The Cincinnati papers of Wednesday, June 11th, contain the following:

On Monday last JOSEPH C. BUTLER, President of the Chamber of Commerce, telegraphed Secretary CHASE as follows :

Cincinnati, June 9.

I would like to announce by authority that shipments of provisions and manufactures may be made to Memphis, and also to New Orleans, if Vicksburg is taken. Our merchants and manufactures will not abuse the privilege.

JOSEPH C. BUTLER,

President Chamber of Commerce.

To this dispatch Secretary CHASE responded as follows :

Washington, June 9, 1862.

Shipments may be made to Memphis, and all other places in possession of the United States forces, under the existing regulations to prevent aid to the rebels, and subject to the inspection and control of the military commanders at points of arrival and destination ; and also from all such places, with permission of the military commanders.

Tender to the Chamber of Commerce, and my fellow citizens of Cincinnati, my heartiest congratulations on the partial reopening of our great rivers, soon, I trust, to be completed. *May they never again be closed to American commerce.*

S. P. CHASE.

ACT TO ESTABLISH A BRANCH MINT.

The following is a copy of an act to establish a branch mint of the United States at Denver, in the Territory of Colorado, approved April 21, 1862 :

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That a branch of the mint of the United States be located and established at Denver, in the Territory of Colorado, for the coinage of gold.

SEC. 2. *And be it further enacted,* That, for carrying on the business of said branch, the following officers shall be appointed as soon as the public interests shall require their service, upon the nomination of the President, by and with the advice and consent of the Senate, namely : One superintendent, one assayer, one melter and refiner, and one coiner ; and the said superintendent shall employ as many clerks, subordinate workmen and laborers, under the direction of the Secretary of the Treasury, as may be required. The salaries of the said officers shall be as follows : To the superintendent, the sum of two thousand dollars ; to the assayer, the sum of eighteen hundred dollars ; to the melter and refiner, eighteen hundred dollars ; to the coiner, eighteen hundred dollars ; to the clerks, subordinate workmen and laborers, such wages and allowances as are customary, according to their respective stations and occupations.

SEC. 3. *And be it further enacted,* That the officers and clerks to be appointed under this act, before entering upon the duties of their offices, shall take an oath or affirmation, before some Judge of the United States or of the Supreme Court of said Territory, faithfully and diligently to perform the duties of their offices, and shall each become bound to the United States of America, with one or more sureties, to the satisfaction of the director of the mint or the Secretary of the Territory of Colorado and of the Secretary of the Treasury, with the condition of the faithful performance of the duties of their offices.

SEC. 4. *And be it further enacted,* That the general direction of the business of said branch of the mint of the United States shall be under the control and regulation of the director of the mint at Philadelphia, subject to the approbation of the Secretary of the Treasury ; and for that purpose it shall be the duty of the said director to prescribe such regula-

tions and require such returns periodically and occasionally, and to establish such charges for parting, assaying, refining, and coining, as shall appear to him to be necessary for the purpose of carrying into effect the intention of this act in establishing said branch; also for the purpose of preserving uniformity of weight, form, and finish in the coin stamped at said branch.

SEC. 5. *And be it further enacted*, That said branch mint shall be a place of deposit for such public moneys as the Secretary of the Treasury may direct. And the superintendent of said branch mint, who shall perform the duties of treasurer thereof, shall have the custody of the same, and also perform the duties of assistant treasurer; and for that purpose shall be subject to all the provisions contained in an act entitled "An act to provide for the better organization of the treasury, and for the collection, safe-keeping, transfer, and disbursement of the public revenue," approved August 6, 1846, which relates to the treasury of the branch mint at New Orleans.

SEC. 6. *And be it further enacted*, That the superintendent of said branch mint be authorized, under the direction of the Secretary of the Treasury, and on terms to be prescribed by him, to issue in payment of the gold dust and bullion deposited for assay and coinage or bars, drafts or certificates of deposit, payable at the Treasury or Sub-treasury of the United States, to any depositor electing to receive payment in that form.

SEC. 7. *And be it further enacted*, That all the laws and parts of laws now in force for the regulation of the mint of the United States, and for the government of the officers and persons employed therein, and for the punishment of all offences connected with the mint or coinage of the United States, shall be and are hereby declared to be in full force, in relation to the branch of the mint by this act established, as far as the same may be applicable thereto.

SEC. 8. *And be it further enacted*, That the sum of \$75,000 be and the same is hereby appropriated, out of any money in the Treasury not otherwise appropriated, to carry into effect the provisions of this act, and to meet the expenses of the current year, and for the fiscal year ending the 30th of June, 1863.

AN ACT AUTHORIZING THE REIMBURSEMENT OF STATES FOR MONEYS
ADVANCED IN ENROLLING, ETC., TROOPS.

The following is a copy of the act approved May 13, 1862 :

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the provision in the fifty-third section of the act "to provide increased revenue from imports, to pay interest on the public debt, and for other purposes," approved August 5, 1861, allowing such portion of the tax as may be assessed by any State, Territory, or the District of Columbia, "to be paid and satisfied, in whole or in part, by the release of such State, Territory, or District, duly executed, to the United States, of any liquidated and determined claim of such State, Territory, or District of equal amount against the United States: *Provided*, That in case of such release, such State, Terri-

tory, or District shall be allowed the same abatement of the amount of such tax as would be allowed in case of the payment of the same in money," shall be construed as applying to such claims of States for reimbursement of expenses incurred by them in enrolling, subsisting, clothing, supplying, arming, equipping, paying, and transporting its troops employed in aiding to suppress the present insurrection against the United States, as shall be filed with the proper officers of the United States before the 13th of July next. And in such cases the abatement of fifteen per centum shall be made on such portion of said tax as may be paid by the allowance of such claims, in whole or in part, the same as if the final settlement and liquidation thereof had been made before the 13th of June.

Approved, May 13, 1862.

THE MEXICAN QUESTION.

EARL RUSSELL TO THE BRITISH MINISTER IN MEXICO.

The following copy of the last note addressed by Earl Russell to Sir C. WYKE, the British Minister at Mexico, explains the causes of the disruption of the alliance :

Foreign Office, May 22, 1862.

MY LORD : Her Majesty's government have had under their consideration your dispatch dated from Orizaba the 11th of April, your former dispatches relating to General ALMONTE, and especially the *proces-verbal* of the conference held at Orizaba on the 9th of April.

Her Majesty's government regret to find that the hope of agreement between the commissioners of Great Britain and Spain on the one hand, and of France on the other, was completely extinguished, and that Admiral JURIEN DE LA GRAVIERE and M. DUBOIS DE SALIGNY had determined to march on Mexico, while you and General PRIM were of opinion that there was no reason for refusing to meet the Mexican Commissioners in the conference which had been fixed to meet at Orizaba on the 16th of April.

The differences of opinion among the Commissioners appear to have turned chiefly on two points. The first of these related to the protection given to General ALMONTE by the French army, and the demand of the Mexican Government that he should be sent back to France. The second point of difference is thus stated by M. DUBOIS DE SALIGNY, in the conference of the 9th of April : "M. DE SALIGNY insists on this point, that it is impossible to deny that the real and principal object of the convention was to obtain satisfaction for the outrages heaped on foreigners by the Mexican Government, and to enforce its observance of treaties ; that the temporising and conciliatory system hitherto pursued was condemned by what was daily occurring, inasmuch as the reign of extortion, tyranny, and violence had been made doubly oppressive, and had rendered the situation of foreigners quite intolerable ; that proofs of this were continually afforded by the complaints daily sent in to him ; that the attitude of the allied forces appeared to have stimulated the government to redoubled audacity ; that, for his part, he formally declared that he would not treat with that government ; and that his well-matured opinion was that it was necessary to march upon Mexico."

Her Majesty's government approve of your conduct on both those points. They consider that the presence of General ALMONTZ in Mexico, under the protection of the French army, might fairly be considered as a provocation to civil war, and Her Majesty's government could not have approved of a measure having that tendency; for at that time the government of Mexico was a government with which the allies were conducting negotiations with a view to a peaceful settlement of their differences.

Her Majesty's government are also of opinion that you acted rightly when, in answer to M. DE SALIGNY's declaration of his unchangeable resolution not to treat with the government of President JUAREZ, you refused to affix your signature to the answer addressed by the French Commissioners to General DOBLADO, and thereby broke up the conference, and put an end to the joint action of the three powers.

Her Majesty's government greatly regret that the co-operation with France should cease; and they regret, above all, that the hope of the fulfillment of the objects of the convention of October 31st, which might have been attained before the end of April—had the conference met on the 15th—should thus have been abandoned.

Her Majesty's government have every reason to be satisfied with the determination you took. They concur in the opinions given by General PRIM, and are happy to find that the conduct of the representative of her Catholic Majesty has been approved by the government of Spain.

Nor is there any reason to regret the course taken by Her Majesty's government. Had they delayed asking redress from the government of Mexico for the wrongs of British subjects, they would have given rise to just complaints from those who are entitled to Her Majesty's protection. Had they pursued their own course separately, and refused to act with France and Spain, they would have produced irritating and unsatisfactory relations, perhaps collisions, between the military and naval forces of the three great European powers. Had they, on the other hand, evinced an insurmountable repugnance to treat with President JUAREZ, *they would have been wanting in due regard to the independence of the Mexican people.*

Had Her Majesty's government, therefore, taken any other course than that which was adopted, they would have incurred the risk of evils greater even than the separation which has now occurred.

You will understand that while Her Majesty's government lament the course taken by the Commissioners of the Emperor of the French, nothing has occurred to impair the friendly relations which continue to subsist between the two governments of Great Britain and France.

I am, &c.,

RUSSELL.

JOURNAL OF MINING, MANUFACTURES, AND ART.

1. LAKE SUPERIOR IRON—AMOUNT AND QUALITY. 2. WESTERN ENTERPRISE—EXPLORING THE UPPER MISSOURI. 3. THE ROCK OIL BUSINESS. 4. DEPTH OF MINES IN ENGLAND. 5. ANOTHER EL DORADO. 6. MANUFACTURE OF BEET-ROOT SUGAR.

LAKE SUPERIOR IRON—AMOUNT AND QUALITY.

THE Lake Superior *Journal*, in speaking of the future shipment of iron ore, says:

"Some idea of the vast iron interests of this region may be formed by our readers in the East, when we state the settled conviction here is that ONE HUNDRED AND FIFTY THOUSAND TONS of iron ore will be shipped from our docks during this present season of navigation. This is not the chimeras of a vivid imagination, but a sober estimate founded on facts and figures. Indeed, we have reason to believe the estimate is too low, for the following reasons:

"1st. The calculation is partially based on the shipments of last year, and we know how depressed the iron interest was then.

"2d. The indications are that this season will be a highly prosperous one for iron, on account of the more settled condition of the country, and the new uses to which this metal is being constantly put, such as building ships, houses, and the like.

"3d. Already, before the season is fairly opened, nearly that amount (one hundred and fifty thousand tons) has been contracted for, to be delivered in Cleveland, Erie, and Buffalo.

"To carry away this product of our iron hills at one time would—allowing two hundred tons to each—require *seven hundred and fifty vessels*, a fleet about as large as the navy of Great Britain. This, we think, will give our readers some idea of the vast wealth yet stored away in this region, and as yet untouched."

The same journal also tells us that—

"During the past week Marquette and the iron mountains beyond have been visited by Mr. BLACKWELL, of London, and formerly Vice-President of the Grand Trunk of Canada. He is a gentleman of high scientific attainments, and came here, at the solicitation of a large iron company in England, to examine the iron mountains and their value, and what advantages are offered here for manufacturing the ore. The company desired to find out whether the reports which had reached England about the quantity and quality of Lake Superior iron are true; and, if so, why so little is being done by capitalists to bring it forward. Also, what advantages we possessed for manufacturing the ore; and whether it could not be shipped to England.

"Mr. BLACKWELL visited the mountains in company with two or three

gentlemen interested in the matter. He was surprised at seeing the vast piles of ore yet untouched, and says that there is not another such deposit upon the globe. As to quality, he pronounces it equal to, or better than, the Russian; and says that, if we only took as much pains to produce a good article as we take to produce a large amount, this Lake Superior iron would drive the Russian from the market. He says, also, that steel can be made from it, of as good a quality as that manufactured from the Swedish iron, so extensively used in England; and all that is needed here is money to manufacture it."

WESTERN ENTERPRISE—EXPLORING THE UPPER MISSOURI.

The American Exploring and Mining Company, of St. Louis, dispatched on the 15th ult. their first exploring party on the steamer *Emilie*, Capt. JOSEPH LABARGE, bound for the head waters of the Missouri River and the Rocky Mountains. The hunters and trappers, who have heretofore alone frequented those wild regions, and poured their gain and traffic into the fur companies, now have competition, and assistance to develop the resources there for agriculture, mining, and manufacturing. Already the impetus given to emigration, *via* Missouri River, to the mountains and Pacific coast, is fully equal to the steamboat facilities for its accommodation. It is the intention of the parties who are now enlisted in the opening up of that region, to make the present navigation arrangements a permanent line of packets from St. Louis to the Great Falls of Missouri River, 3,200 miles by river from St. Louis.

The American Exploring and Mineral Company was formed but a few months ago, and now send out this exploring party, fitted with an abundance of implements and the necessary provision for exploring and mining one year or more, and they will represent the energy and adventure of the American character. Three of the party are old experienced miners, and in company with H. M. THOMPSON, have been mainly instrumental in perfecting this organization. These gentlemen were probably the first of any in St. Louis to move in the undertaking now so prosperously commenced. On the 22d of March of this year, they, together with a few friends whom they had made acquainted with their plans, met at the office of H. M. THOMPSON, and organized this company, with a capital of \$100,000, and chose JOSEPH FOGG, Esq., President, with a good board of directors, who have devoted themselves to the advancement of the company's interests. As the party go out in the service of an organized company of St. Louis men, more than a passing interest is attached to its departure. This immense country is to be opened up to the trade of the world, and the business men of St. Louis and other cities naturally feel a deep interest in this undertaking, as the Missouri River is sure to be the great highway to and from the Pacific coast, and an early and adequate movement should be made to reap the benefits of these newly discovered golden fields.

There is but little doubt, from all accounts received, that this is a very rich mineral country. One who is well acquainted with it says: "The world will be astonished when it is made known." The exploring party

will make thorough investigations, and report to the secretary of the home organization at the office of H. M. THOMPSON, in St. Louis, which will be headquarters for direct and reliable information from the gold regions of the Upper Missouri and Bitter Root valleys.

THE ROCK OIL BUSINESS.

The Oil City *Register*, published at the great center of the oil trade, gives the following table, showing the number of wells now flowing, etc., on Oil Creek:

Number of wells now flowing.....	75
Number of wells that formerly flowed and pumped....	62
Number of wells sunk and commenced.....	358
Total.....	495
Amount of oil shipped.....bbls.	1,000,000
Amount on hand to date.....	92,450
Present amount of daily flow.....	5,717
Average value of the oil at \$1 per bbl.....	\$1,092,000
Average cost of wells \$1,000 each.....	495,000
Machinery, buildings, etc., from \$500 to \$700 each	500,000
Total number of refineries.....	25

DEPTH OF MINES IN ENGLAND.

An English journal, after valuing the total product of the mines of Great Britain at £41,491,102 per annum, and computing that England's supply of coal will last at least seven hundred years longer, at present rates of consumption, gives the following account of the depth to which the bowels of the earth have been pierced in England:

The depth to which we mine for coal is already great. The pit at Duckenfield, in Cheshire, is 2,004 feet below the surface to the point where it intersects the "Black Mine Coal," a seam which is four feet six inches thick, and of the best quality for domestic and manufacturing purposes; from this point a further depth of 500 feet has been attained by means of an engine plane in the bed of coal, so that a great portion of the coal is now raised from the enormous depth of 2,504 feet. At Pendleton, near Manchester, coal is daily worked from a depth of 2,135 feet; and the Cannel coal of Wigan is brought from 1,773 feet below the surface. Many of the Durham collieries are equally deep, and far more extended in their subterranean labyrinths. Some of those, and others in Cumberland, are worked out far under the bed of the sea; and on both sides of the island we are rapidly extending our sub-oceanic burrowing.

Dolcoath tin mine, in Cornwall, is now working at 1,800 feet from the surface, and is rapidly sinking deeper. The depth of Tresavean, a copper mine is 2,180 feet. Many other tin and copper mines are approaching

corded of California or Australia. One miner says his claim will last ten years "to work it out." Labor commands \$8 per day with board; so that an industrious and healthy man cannot fail to make money. Gold dust is worth \$16 30 to \$16 50 per ounce, or \$17 in payment for goods. It averages about 850-100ths fine, though some specimens assayed 918. The winter climate of Carriboo is not worse than that of Canada. The Indians are peaceable. Among the drawbacks are the want of good roads and the consequent difficulty of obtaining supplies of provisions and tools, for both of which very high prices have to be paid. Probably the lowest price paid for any article of food is \$1 a pound, on the California scale twelve years ago. The mining season continues from May to October; but as tunnelling has commenced, there will be no difficulty in the mines all the year through.

MANUFACTURE OF BEET-ROOT SUGAR.

An eminent Prussian chemist, of the name of MARGGRAF, first called the attention of the public to beet-root sugar, by an elaborate memoir printed in the *Transactions* of the Academy of Berlin for 1747. The roots selected by him for experiment were the skirret, (a variety of parsnip,) the white beet, and the red. He found that when slices of these were dried by a very gentle heat, small spicular crystals of sugar might be observed in them by a microscope. Next he reduced the dried root to powder, and digested it in boiling alcohol, by which the whole of the sugar was dissolved, and the mucilage, starch, and most of the other impurities were left behind. The alcoholic solution, by long rest, deposited crystals of sugar, which, by re-solution and crystallization, were obtained quite white, amounting in quantity to from one-twenty-fifth to one-sixteenth of the weight of the dried root. He also found that the white beet loses by drying three-fourths of its weight, and the red beet seven-eighths.

He next made an attempt to manufacture sugar from these roots; for which purpose, having broken down the texture of the skirret by bruising it in a mortar, and of the beet by grating it, he pressed out the liquor, and kept it at rest for forty-eight hours in a cool cellar. It here deposited most of the seculence; and the clear liquor was drawn off. It was then clarified with white of egg, boiled down, and the syrup, after some months, afforded brown crystals intermixed with syrup. The crystalline part was again dissolved, crystallized anew, and afforded a concrete viscid mass, from which the syrup drained off by degrees, and left the rest nearly in the state of muscovado, or raw cane sugar.

The experiments of MARGGRAF were, several years afterwards, resumed by M. ACHARD, at the desire of the Prussian government. He followed the general process pointed out by his predecessor, except that he boiled the beet previous to pressing it—a change obviously for the worse, as he thus rendered soluble most of the starch, and introduced an additional embarrassment in the subsequent operations.

After the failure in France of the attempt to make grape-sugar, the attention of CHAPTAL, at that time Minister of the Interior, and a manufacturing chemist of considerable eminence, was directed to the half-suc-

cessful attempts which had been made in Prussia, and other parts of Germany, to obtain sugar from beet-root, and which I have already mentioned. A manufactory was established by M. CHAPTAL at Amboise, on the Loire; and by substituting a crop of beet, in the rotation of his farm, instead of a naked fallow, and by feeding sheep and cattle on the fibrous residue of the roots, after having pressed out the sweet liquor, he obtained his raw material at a very easy price. The subsequent treatment of the juice differed in no material degree from that employed by MARGGRAF, except that instead of at first standing to settle it was directly run into the boiler, where it was mixed with quicklime. The other processes were also much expedited; and the result, according to the statement of M. CHAPTAL, was a profit of sufficient magnitude to encourage the extension of the manufacture. At the end of 1825, there had been twenty-six establishments founded in the north of France for the preparation of beet-sugar; and from that time to the present, the number appears to have been continually increasing, and the quality of their products improving. This has been the result of several advantageous modifications of the original process.

The juice, after being pressed from the pulp, undergoes its first defecation in a boiler, where it is mixed, while cold, with a small quantity of dilute sulphuric acid. After this latter is judged to have acted sufficiently, it is neutralized by the addition of slacked lime; and the fire is then lighted. When the liquor has been heated up to about 100° Fahr., animal charcoal is first stirred into it, and then blood diluted with water. As the heat increases, the blood coagulates and involves all the impurities floating in the liquor, which after filtration through a woollen cloth, is clear, bright, and of a very pale yellow color. It is now put into a shallow boiler, and evaporated at a heat never exceeding 200°, for fear of burning it, till it is brought to the consistence of syrup. It is then filtered, is further reduced by boiling, and then is transferred to a cistern, where it is stirred continually until it granulates, and is got sufficiently cool to be poured into cones of earthenware; after which it is treated precisely as cane-sugar.

It has been, however, observed, that the lime employed in the process of defecation injured the sugar in the subsequent boiling; to prevent which the manufacturers are now in the habit of adding the lime to the raw liquor, and afterwards saturating it, or very nearly so, with sulphuric acid.

It appears, on a general average, that the beet used by the French manufacturers yields 70 per cent of juice; and that 100 parts of the entire beet afford from two to two and a-half of common loaf-sugar. The molasses, or uncrystallizable syrup, when fermented and distilled, yield a spirit, which, on account of its peculiar and disagreeable flavor, is only employed in the composition of varnishes and other similar uses.—*The Grocer of London.*

RAILWAY, CANAL, AND TELEGRAPH STATISTICS.

1. THE NEW YORK STATE CANALS. 2. THE SUZUK CANAL. 3. MORRIS CANAL AND BANKING COMPANY. 4. THE PACIFIC RAILROAD.

THE NEW YORK STATE CANALS.

The following tables, which we take from the Auditor's Report, show the amount transported and received for tolls on the canals of the State during the years 1860 and 1861 :

Description of articles.	1860.	1861.	1861.	1861.
	Tons.	Tons.	Gain in tons.	Loss in tons.
Furs and peltry.....	222	155	.....	67
Products of wood	1,509,755	1,052,237	.....	457,518
Product of animals.....	19,882	19,282	.....	600
Vegetable food.....	1,659,158	2,122,237	463,079	.....
All other agricultural products	3,714	2,854	.....	860
Manufactures.....	268,759	280,256	11,497	.....
Merchandise.....	250,360	135,096	.....	115,264
Other articles.....	938,364	895,518	.....	42,846
Total.....	4,650,214	4,507,635	474,576	617,155

Description of articles.	1860.	1861.	1861.	1861.
	Tolls.	Tolls.	Gain in tolls.	Loss in tolls.
Boats and passengers.....	\$199,479	\$207,924	\$8,445	.....
Furs and peltry.....	113	81	.....	32
Products of wood	657,511	398,566	.....	258,945
Product of animals	13,039	14,132	1,093	.....
Vegetable food.....	1,574,390	2,856,846	1,282,456	.....
All other agricultural products	1,348	1,220	.....	128
Manufactures	87,956	95,722	7,766	.....
Merchandise	223,885	107,958	.....	115,927
Other articles.....	251,876	226,336	.....	25,540
Total.....	3,009,597	3,908,785	1,299,760	400,572

Comparing the two years we find a loss of 617,155 tons in various descriptions of property, and a gain of 474,576 in other descriptions. The balance against the canals on this account is 142,579 tons. There is a gain of \$1,299,760 in tolls on four classes of property, and a loss of \$400,572 on five other classes, leaving a balance in favor of the canals for the year of \$899,188.

It has been supposed that the traffic on the canals has been much benefited during the season of 1861 by the navigation of the Mississippi

THE SUEZ CANAL.

The annual meeting of the shareholders of the Suez Canal Company was held in Paris on the 2d of May. The report contains several very interesting facts. It appears from it that there exists no doubt in the opinion of the chief engineer that the waters of the Red Sea will unite with the Mediterranean in the course of eight months. Port Said is commenced, and the new town already contains a population of 1,000 Europeans and 2,000 Arabs. There are at present 26,000 Arabs employed, and their number will shortly be increased to 40,000. M. DE LESSEPS congratulated the shareholders on all political opposition to the canal having ceased, and paid a high compliment to Lord Russell, Mr. Gladstone, and Mr. Milner Gibson for their speeches in Parliament on the subject. The Alexandria correspondent of the London *Times* transmits the following further information on this subject: The Suez Canal Company have lately been enabled, by means of the large supply of men obtained from government, to push on their operations with greater activity. They have at the present moment, according to the information I have received from a gentleman who has just returned from the Isthmus, in forced labor about 22,000 men, and about 1,500 volunteers. The intention is to raise the number of laborers to 40,000 men if the government can be induced to grant them. At present the work is almost entirely concentrated upon the cutting to be made through the sand heights of El Djisir, and engineers of the company promise that the *rigole de service*, or small elementary canal, will, within the next two months, convey the water of the Mediterranean into the basin of Lake Timash. This canal, it will be remembered, is about 15 feet wide and about 18 inches in depth. The portion of the *rigole* constructed through Lake Menzaleh last year has been almost entirely obliterated. Some 22 dredging machines are shortly to be at work re-excavating the canal on the full scale, and with strong embankments. At Port Said some of the iron piles lately driven into the sea for the purpose of forming a small stone islet on the line of the proposed western jetty have, after a severe storm, been either bent or else they have given way in their foundations, and the cross iron tie-bars have been broken away. These skeleton frames of iron are intended to be filled with large blocks of stone, to be brought for the purpose from the quarries of Mex, near Alexandria. The wooden jetty that projects from the shore, and which is constructed with wooden piles filled in with stone, has not been injured by the late storm. It will be seen from the above that very much, in fact, almost everything, remains to be done. Whether the project will or will not be brought to a successful termination is, of course, entirely a question of money and men. Where these can be obtained in sufficient abundance it can hardly be said that the accomplishment of any work whatever is beyond the skill of modern engineering. But there is clearly room for the strongest doubt that the capital subscribed by the company will be sufficient to effect the object, and when it is exhausted it is difficult to see whence another supply will be obtained, especially as the improbability of the canal, even if made, ever paying or being of any practical use must become more and more apparent. It is not unlikely also that it will presently be discovered that the Isthmus of Suez is, after all, not a weak point *dans la cuirasse Anglaise*.

MORRIS CANAL AND BANKING COMPANY.

From the report of this company for the fiscal year ending February 28, 1862, we learn that the canal was opened for business on the 18th of March on the western division, and the 25th on the eastern division. The navigation was maintained, with occasional interruption from casualties to the banks and machinery, until closed by ice on the 13th of December at the west end, and the 20th of December at the east end.

The income of the company from tolls and other sources was \$291,846 37

And the expenses were :

Operating canal.....	\$31,068 53	
Repairing canal and works.....	82,305 18	
Salaries, interest, law, and other expenses....	25,611 75	
Transportation expenses.....	4,357 41	
		<hr/>
		143,402 87
Profit	\$148,443 50	
Balance at credit February 28, 1861.....	18,290 68	
		<hr/>
		\$166,734 18
Dividends on preferred stock.....	\$117,500 00	
Interest on mortgage bonds.....	32,910 00	
Depreciation of boats, horses, etc.....	3,603 42	
Balance surplus.....	12,720 76	
		<hr/>
		\$166,734 18

Compared with the previous year the receipts show a decrease of \$58,864 26, with a decrease in expenses of \$869 39—making the decrease in net earnings \$57,994 87.

Notwithstanding the diminution of business upon the canal, and the consequent reduction of income of the company, the net earnings of the year have sufficed to enable the company to keep their works in good repair, increase the capacity of the canal, to pay the interest on the bonded debt, and the usual dividend on the preferred stock.

The expenditures during the year, for the permanent improvement of the canal, and its works, including the outlay at Jersey City, and for new boats, has amounted to the sum of \$42,677 50. These improvements and outlays were deemed necessary for an increased efficiency of the canal, and to furnish additional facilities to the trade. In reference to the improvements made and expenses incurred under this head the engineer says :

GENERAL STATEMENT.

Cost of canal and appurtenances..... \$2,895,962 79

ASSETS.

Cash	\$11,728 75	
Bills receivable.....	25,157 50	
Individual accounts.....	39,295 10	
Materials.....	23,377 21	
		<hr/>
		99,558 56
		<hr/>
		\$2,995,521 35

CAPITAL STOCK.

Consolidated.....	\$1,025,000 00
Preferred.....	1,175,000 00
	<hr/>
	\$2,200,000 00
Mortgage bonds.....	655,250 00
	<hr/>
	\$2,855,250 00

LIABILITIES.

Bills payable.....	\$117,594 75	
Individual accounts.....	6,238 06	
Dividends unclaimed.....	3,447 78	
Coupons.....	270 00	
	<hr/>	127,550 59
Profit and loss—surplus.....		12,720 76
		<hr/>
		\$2,995,521 35

The Morris Canal is 102 miles in length, extending from the Delaware opposite Easton, Pennsylvania, to Jersey City. Its entire tonnage last year was 619,369 tons.

THE PACIFIC RAILROAD.

The following is a copy of the act to aid in the construction of a railroad and telegraph line from the Missouri River to the Pacific Ocean, and to secure to the government the use of the same for postal, military, and other purposes, as passed by Congress:

Be it enacted, &c., That (1) Walter S. Burgess, William P. Blodgett, Benjamin H. Cheever, Charles Fosdick Fletcher, of Rhode Island; Augustus Brewster, Henry P. Haven, Cornelius S. Bushnell, Henry Hammond, of Connecticut; Isaac Sherman, Dean Richmond, Royal Phelps, William H. Ferry, Henry A. Paddock, Lewis J. Stancliff, Charles A. Secor, Samuel R. Campbell, (2) Alfred E. Tilton, John Anderson, Azariah Boody, John S. Kennedy, H. Carver, Joseph Field, Benjamin F. Camp, Orville W. Childs, Alexander J. Bergen, Ben. Holliday, D. N. Barney, S. DeWitt Bloodgood, Wm. H. Grant, Thomas W. Olcott, Samuel B. Ruggles, James B. Wilson, of New York; (3) Ephraim Marsh, Charles M. Harker, of New Jersey; John Elgar Thomson, Benjamin Haywood, Joseph H. Scranton, Joseph Harrison, George W. Cass, John H. Bryant, Daniel J. Morell, (4) Thomas M. Howe, William F. Johnson, Robert Finney, John A. Green, E. R. Myre, Charles F. Wells, Jr., of Pennsylvania; Noah L. Wilson, Amasa Stone, William H. Clement, S. L. L'Honnmedien, (5) John Brough, William Denison, Jacob Blickensderfer, of Ohio; William M. McPherson, R. W. Wells, Willard P. Hall, Armstrong Beatty, (6) John Corby, of Missouri; S. J. Hensley, Peter Donahue, C. P. Huntington, T. D. Judah, (7) James Bailey, James T. Ryan, Charles Hosmer, Charles Marsh, D. O. Mills, Samuel Bell, Louis McLane, George W. Mowe, Charles McLaughlin, Timothy Dame, John R. Robinson, of California; John Atchison and John D. Winters, of the Territory of Nevada; John D. Campbell, R. N. Rice, Charles A. Trow-

bridge, and Ransom Gardner, (8) Charles W. Penny, Charles T. Gorham, William McConnell, of Michigan; William F. Coolbaugh, Lucius H. Langworthy, Hugh T. Reid, Hoyt Sherman, (9) Lyman Cook, Samuel R. Curtis, Lewis A. Thomas, Platt Smith, of Iowa; William B. Ogden, Charles G. Hammond, Henry Farnum, Amos C. Babcock, W. Seldon Gale, (10) Nehemiah Bushnell, and Lorenzo Bull, of Illinois; William H. Swift, Samuel T. Dana, John Bertram, Franklin S. Stevens, (11) Edward R. Tinker, of Massachusetts; Franklin Gorin, Laban J. Bradford, and John T. Lewis, of Kentucky; James Dunning, (12) John M. Wood, Edwin Noyes, Joseph Eaton, of Maine; Henry H. Baxter, (13) Geo. W. Collamer, Henry Keyes, Thomas H. Canfield, of Vermont; William S. Ladd, A. M. Berry, (14) Benjamin F. Harding, of Oregon; William Bunn, Jr., John Catlin, Levi Sterling, (15) John Thompson, Elihu L. Phillips, Walter D. McIndoe, T. B. Soddard, E. H. Broadhead, A. H. Virgin, of Wisconsin, Charles Paine, Thomas A. Morris, David C. Branham, Samuel Hanna, Jonas Votaw, Jesse L. Williams, (16) Isaac C. Elston, of Indiana; Thomas Swan, Chauncey Brooks, Ed. Wilkins, of Maryland; Fr. R. E. Cornell, David Blakely, (17) A. D. Seward, Henry A. Swift, Dwight Woodbury, John McCusick, John R. Jones, of Minnesota; Joseph A. Gilmore, (18) Charles W. Woodman, of New Hampshire; W. H. Grimes, J. C. Stone, Chester Thomas, John Kerr, (19) Werter R. Davis, Luther C. Challis, Josiah Miller, of Kansas; Gilbert C. Monell and Augustus Kountz, (20) T. M. Marquette, William H. Taylor, Alvin Saunders, of Nebraska; (21) John Evans, of Colorado; together with five commissioners to be appointed by the Secretary of the Interior, and all persons who shall or may be associated with them, and their successors, are hereby created and erected into a body corporate and politic in deed and in law, by the name, style, and title of "The Union Pacific Railroad Company;" and by that name shall have perpetual succession, and shall be able to sue and to be sued, plead and be impleaded, defend and be defended, in all courts of law and equity within the United States, and may make and have a common seal; and the said corporation is hereby authorized and empowered to lay out, locate, construct, furnish, maintain, and enjoy a continuous railroad (22) and telegraph, with the appurtenances, from (23) a point on the one (24) hundredth meridian of longitude west from Greenwich, (25) between the south margin of the valley of the Republican River and the north margin of the valley of the Platte River, in the Territory of Nebraska, to the western boundary of Nevada Territory, upon the route and terms hereinafter provided, and is hereby vested with all the powers, privileges, and immunities necessary to carry into effect the purposes of this act as herein set forth. The capital stock of said company shall consist of one hundred thousand shares of \$100,000 each, which shall be subscribed for and held in not (26) more than two hundred shares by any one person, and shall be transferable in such manner as the by-laws of said corporation shall provide. The persons hereinbefore named, (27) together with those to be appointed by the Secretary of the Interior, are hereby constituted and appointed commissioners, (28) and such body shall be called the Board of Commissioners of the Union Pacific Railroad (29) and Telegraph Company, and twenty-five shall constitute a quorum for the transaction of business. The first meeting of said board shall be held at Chicago, at such time as the commissioners from Illinois herein named shall appoint, not more than three nor less than one month after the passage of this act, notice of which shall be given by them to the other com-

missioners by depositing a call therefor in the post-office at Chicago, post paid, to their address at least (30) forty days before said meeting, (31,) and also by publishing said notice in one daily newspaper in each of the cities of Chicago and St. Louis. Said board shall organize by the choice from its number of a president, secretary, and treasurer, and they shall require from said treasurer such bonds as may be deemed proper, and may from time to time increase the amount thereof as they may deem proper. It shall be the duty of said board of commissioners to open books, or cause books to be opened, at such times and in such principal cities in the United States as they, or a quorum of them shall determine, to receive subscriptions to the capital stock of said corporation, and a cash payment of ten per centum on all subscriptions, and to receipt therefor. So soon as two thousand shares shall be in good faith subscribed for, and ten dollars per share actually paid into the treasury of the company, the said president and secretary of said board of commissioners shall appoint a time and place for the first meeting of the subscribers to the stock of said company, and shall give notice thereof in at least one newspaper in each State in which subscription books have been opened at least thirty days previous to the day of meeting, and such subscribers as shall attend the meeting so called, either in person or by proxy, shall then and there elect by ballot not less than thirteen directors for said corporation; and in such election each share of said capital shall entitle the owner thereof to one vote. The president and secretary of the board of commissioners shall act as inspectors of said election, and shall certify under their hands the names of the directors elected at said meeting; and the said commissioners, treasurer, and secretary shall then deliver over to said directors all the properties, subscription books, and other books in their possession, (32) and thereupon the duties of said commissioners and the officers previously appointed by them shall cease and determine forever, and thereafter the stockholders shall constitute said body politic and corporate. At the time of the first and each triennial election of directors by the stockholders, two additional directors shall be appointed by the President of the United States, who shall act with the body of directors, and to be denominated directors on the part of the government; any vacancy happening in the government directors at any time may be filled by the (33) President of the United States. The directors to be appointed by the President shall not be stockholders in the Union Pacific Railroad Company. The directors so chosen shall, as soon as may be after their election, elect from their own number a president and vice-president, and shall also elect a treasurer and secretary. No person shall be a director in said company unless he shall be a bona fide owner of at least five shares of stock in the said company, except the two directors to be appointed by the President as aforesaid. Said (34) company, at any regular meeting of the stockholders called for that purpose, shall have power to make by-laws, rules, and regulations as they shall deem needful and proper, touching the disposition of the stock, property, estate, and effects of the company, not inconsistent herewith, the transfer of shares, the term of office, duties, and conduct of their officers and servants, and all matters whatsoever which may appertain to the concerns of said company; and the said board of directors shall have power to appoint such engineers, agents, and subordinates as may from time to time be necessary to carry into effect the object of this act, and to do all acts and things touching the location and construction of said road (35) and telegraph. Said directors may require payment of subscrip-

tions to the capital stock, after due notice, at such times, and in such proportions as they shall deem necessary to complete the railroad and telegraph within the time in this act prescribed. Said president, vice-president, and directors shall hold their office for three years, and until their successors are duly elected (36) and qualified, or for such less time as the by-laws of the corporation may prescribe; and a majority of said directors shall constitute a quorum for the transaction of business. The secretary and treasurer shall give bonds, with such security, as the said board shall from time to time require, and shall hold their offices at the will and pleasure of the directors. Annual meetings of the stockholders of the said corporation, for the choice of officers, (when they are to be chosen,) and for the transaction of annual business, shall be holden at such time and place and upon such notice as may be prescribed in the by-laws.

Sec. 2. *And be it further enacted*, That the right of way through the public lands be, and the same is hereby granted to said company for the construction of said railroad and telegraph line, and the right, power, and authority is hereby given to said company to take from the public lands adjacent to the line of said road, earth, stone, timber, and other materials for the construction thereof; said right of way is granted to said railroad to the extent of two hundred feet in width on each side of the line of said railroad where it may pass over the public lands, including all necessary grounds for stations, buildings, workshops, and depots, machine shops, switches, side tracks, turn tables, and water stations. The United States shall extinguish as rapidly as may be the Indian titles to all lands falling under the operation of this act, and required for the said right of way and grants hereinafter made.

Sec. 3. *And be it further enacted*, That there be, and is hereby granted to the said company, for the purpose of aiding in the construction of said railroad and the telegraph line, and to secure the safe and speedy transportation of the mails, troops, munitions of war, and public stores thereon, every alternate section of (37) public land, designated by odd numbers, to the amount of five alternate sections per mile on each side of said railroad, (38) on the line thereof, (39) and within the limits of ten miles on each side of said road, not sold, reserved, or otherwise disposed of by the United States, and to which a pre-emption or homestead claim may not have attached, at the time the line of said road is definitely fixed. Provided, That all mineral lands shall be excepted from the operation of this (40) act; but where the same shall contain timber, the timber thereon is hereby granted to said company. And all such lands, so granted by this section, which shall not be sold or disposed of by said company within three years after the entire road shall have been completed, shall be (41) subject to settlement and pre-emption, like other land, at a price not exceeding one dollar and twenty-five cents per acre, to be paid to said company.

Sec. 4. *And be it further enacted*, That whenever said company shall have completed forty consecutive miles of any portion of said railroad and telegraph line, ready for the service contemplated by this act, and supplied with all necessary drains, culverts, viaducts, crossings, sidings, bridges, turn-outs, watering places, depots, equipments, furniture, and all other appurtenances of a first-class railroad, the rails and all the other iron used in the construction and equipment of said road (42) to be American manufacture of the best quality, the President of the United States shall appoint three commissioners to examine the same and report to him in relation thereto;

and if it shall appear (43) to him that forty consecutive miles of said railroad and telegraph line have been completed (44) and equipped in all respects as required by this act, then, upon certificates of said commissioners to that effect, patents shall issue conveying the right and title to said lands to said company, (45) on each side of the road as far as the same is completed, to the amount aforesaid; and patents shall in like manner issue as forty miles of said railroad and telegraph line as completed, upon certificate of said commissioners. Any vacancies occurring in said board of commissioners by death, resignation, or otherwise, shall be filled by the President of the United States: (46) Provided, however, That no such commissioners shall be appointed by the President of the United States unless there shall be presented to him a statement, verified on oath by the president of said company, that such forty miles have been completed, in the manner required by this act, and setting forth with certainty the points where such forty miles begin, and where the same end; which oath shall be taken before a judge of a court of record.

SEC. 5. *And be it further enacted*, That for the purposes herein mentioned the Secretary of the Treasury shall, upon the certificate in writing of said commissioners of the completion (47) and equipment of forty consecutive miles of said railroad and telegraph, in accordance with the provisions of this act, issue to said company bonds of the United States of one thousand dollars each, payable in thirty years after date, bearing six per centum per annum interest, (said interest payable semi annually,) which interest may be paid in United States Treasury notes, or any other money or currency which the United States have or shall declare lawful money and a legal tender, to the amount of sixteen of said bonds per mile for such section of forty miles; and to secure the repayment to the United States, as hereinafter provided, of the amount of bonds so issued and delivered to said company, together with all interest thereon which shall have been paid by the United States, the issue of said bonds and delivery to the company shall *ipso facto* constitute a first (48) mortgage on the whole line of the railroad and telegraph (49) together with the rolling stock, fixtures and property of every kind and description, and in consideration of which said bonds may be issued; and on the refusal or failure of said company to redeem said bonds, or any part of them, when required to do so by the Secretary of the Treasury, in accordance with the provisions of this act, the said road, with all the rights, functions, immunities, and appurtenances thereunto belonging, and also all lands granted to the said company by the United States, which, at the time of said default, shall remain in the ownership of the said company, (50) may be taken possession of by the Secretary of the Treasury for the use and benefit of the United States: *Provided*, This section shall not apply to that part of any road now constructed (51.)

SEC. 6. *And be it further enacted*, That the grants aforesaid are made upon condition that said company (52) shall pay said bonds at maturity, and shall keep said railroad and telegraph line in repair and use, and shall at all times transmit dispatches over said telegraph line, and transport mails, troops, and munitions of war, supplies and public stores upon said railroad for the government, whenever required to do so by any department thereof, and that the government shall at all times have the preference in the use of the same for all the purposes aforesaid, (at fair and reasonable rates of compensation, not to exceed the amounts paid by private parties for the same kind of service;) and all compensation for services rendered for

the government shall be applied to the payment of said bonds and interest until the whole amount is fully paid. Said company may also pay the United States, wholly or in part, in the same or other bonds, Treasury notes, or other evidences of debt against the United States, to be allowed at par; and after said road is completed, until said bonds and interest are paid, at least five per centum of the net earnings of said road shall also be annually applied to the payment thereof.

SEC. 7. *And be it further enacted*, That said company shall file their assent to this act, under the seal of said company, in the Department of the Interior, within one year after the passage of this act, and shall complete said railroad and telegraph from the (53) point of beginning as hereinafter provided, to the western boundary of Nevada Territory before the first day of July, one thousand eight hundred and seventy-four: *Provided*, That within two years after the passage of this act said company shall (54) designate the general route of said road, as near as may be, (55) and shall file a map of the same in the Department of the Interior, whereupon the Secretary of the Interior shall cause the lands (56) within fifteen miles of said designated route or routes to be withdrawn from pre-emption, private entry, and sale; and when any portion of said route shall be finally located, the Secretary of the Interior shall cause the said lands (57) hereinbefore granted to be surveyed and set off as fast as may be necessary for the purposes herein named: *Provided*, That in fixing the point of connection of the main trunk with the eastern connections, it shall be fixed at the most practicable point for the construction of the Iowa and Missouri branches, as hereinafter provided.

SEC. 8. *And be it further enacted*, That the line of the said railroad and telegraph shall commence at (58) a point on the one-hundredth meridian of longitude west from Greenwich, (59) between the south margin of the valley of the Republican river and the north margin of the valley of the Platte river, in the Territory of Nebraska, at (60) a point to be fixed by the President of the United States, after actual surveys; thence running westerly upon the most direct, central, and practicable route, through the territories of the United States, to the western boundary of the Territory of Nevada, there to meet and connect with the line of the Central Pacific Railroad Company of California.

SEC. 9. *And be it further enacted*, That the Leavenworth, Pawnee, and Western Railroad Co., of Kansas are hereby authorized to construct a railroad and telegraph line (61) from the Missouri river, at (62) the mouth of the Kansas river, on the south side thereof, so as to connect with the Pacific Railroad of Missouri, to the aforesaid point, on the one hundredth meridian of longitude west from Greenwich, as herein provided, upon the same terms and conditions in all respects as are provided in this act for the construction of the railroad and telegraph line first mentioned, and to meet and connect with the same at the meridian of longitude aforesaid; and in case the general route or line of road from the Missouri river to the Rocky Mountains should be so located as to require a departure northwardly from the proposed line of said Kansas Railroad before it reaches the meridian of longitude aforesaid, the location of said Kansas road shall be made so as to conform thereto; and said railroad through Kansas shall be so located between (63) the mouth of the Kansas river, as aforesaid, and the aforesaid point, on the one hundredth meridian of longitude, that the several railroads from (64) Missouri and Iowa, herein authorized to connect with the same,

can make connection within the limits prescribed in this act, (65) provided the same can be done without deviating from the general direction of the whole line to the Pacific coast. The route in Kansas, (66) west of the meridian at Fort Riley, to the aforesaid point, on the one hundredth meridian of longitude, to be subject to the approval of the President of the United States, (67) and to be determined by him on actual survey. And said Kansas Company may proceed to build said railroad to the (68) aforesaid point, on the hundredth meridian of longitude west from Greenwich, (69) in the Territory of Nebraska. The Central Pacific Railroad Company of California, the corporation existing under the laws of the State of California, are hereby authorized to construct a railroad and telegraph line from the Pacific coast, at or near San Francisco, or the navigable waters of the Sacramento river, to the eastern boundary of California, upon the same terms and conditions, in all respects, as are contained in this act for the construction of said railroad and telegraph line first mentioned, and to meet and connect with the first-mentioned railroad and telegraph line on the eastern boundary of California. Each of said companies shall file their acceptance of the conditions of this act in the Department of the Interior within six months after the passage of this act.

SEC. 10. *And be it further enacted*, That the said company chartered by the State of Kansas shall complete one hundred miles of their said road, commencing at (70) the mouth of the Kansas river as aforesaid, within two years after filing their assent to the conditions of this act, as herein provided, and one hundred miles per year thereafter until the whole is completed; and the said Central Pacific Railroad Company of California shall complete fifty miles of their said road within two years after filing their assent to the provisions of this act, as herein provided, and fifty miles per year thereafter until the whole is completed; and after completing their roads respectively, said companies, or either of them, may unite upon equal terms with the first-named company in constructing so much of said railroad and telegraph line (71) and branch railroads and telegraph lines in this act hereinafter mentioned, through the Territories from the State of California to the Mississippi river, as shall then remain to be constructed, on the same terms and conditions as provided in this act in relation to the said Union Pacific Railroad Company. And the Hannibal and Saint Joseph Railroad, (72) the Pacific Railroad Company of Missouri, and the first-named company, or either of them, on filing their assent to this act, as aforesaid, may unite upon equal terms, under this act, with the said Kansas company, in constructing said railroad and telegraph to said meridian of longitude, (73) with the consent of the said State of Kansas; and in case said first-named company shall complete their line to the (74) eastern boundary of California before it is completed across said State by the Central Pacific Railroad Company of California, said first-named company is hereby authorized to continue in constructing the same through California, (75) with the consent of said State, upon the terms mentioned in this act, until said roads shall meet and connect, and the whole line of said railroad and telegraph is completed; and the Central Pacific Railroad Company of California, after completing its road across said State, is authorized to continue the construction of said railroad and telegraph (76) through the Territories of the United States to the Missouri river, including the branch roads specified in this act, upon the routes hereinbefore and hereinafter indicated, on the terms and conditions provided in this act in relation to the

said Union Pacific Railroad Company, until said roads shall meet and connect, and the whole line of said railroad and branches and telegraph is completed.

SEC. 11. *And be it further enacted*, that for three hundred miles of said road most mountainous and difficult of construction, to wit: one hundred and fifty miles westwardly from the eastern base of the Rocky Mountains, and one hundred and fifty miles eastwardly from the western base of the Sierra Nevada mountains, (77) said point to be fixed by the President of the United States, the bonds to be issued to aid in the construction thereof shall be treble the number per mile hereinbefore provided, and the same shall be issued, and the lands herein granted be set apart, upon the construction of every twenty miles thereof, upon the certificate of the commissioners as aforesaid that twenty consecutive miles of the same are completed; and between the sections last named of one hundred and fifty miles each, the bonds to be issued to aid in the construction thereof shall be double the number per mile first mentioned, and the same shall be issued, and the lands herein granted be set apart, upon the construction of every twenty miles thereof, upon the certificate of the the commissioners as aforesaid that twenty consecutive miles of the same are completed: *Provided*, that no more than fifty thousand of said bonds shall be issued under this act to aid in constructing the main line of said railroad and telegraph.

SEC. 12. *And be it further enacted*, That whenever the route of said railroad shall cross the boundary of any State or Territory, or said meridian of longitude, the two companies meeting or uniting there shall agree upon its location at that point, with reference to the most direct and practicable through route, and in case of difference between them as to said location, the President of the United States shall determine the said location; the companies named in each state and territory to locate the road across the same between the points so agreed upon, except as herein provided. The track upon the entire line of railroad (78) and branches shall be of uniform width, to be (79) determined by the President of the United States, so that, when completed, cars can be run from the Missouri river to the Pacific coast; the grades and curves shall not exceed the maximum grades and curves of the Baltimore and Ohio Railroad; the whole line of said railroad (80) and branches, and telegraph shall be operated and used for all purposes of communication, travel, and transportation, so far as the public and government are concerned, as one connected, continuous line; and the companies herein named in Missouri, (81) Kansas, and California, filing their assent to the provisions of this act, shall receive and transport all iron rails, chairs, spikes, ties, timber, and all materials required for constructing and furnishing said first-mentioned line between the (82) aforesaid point, on the one hundredth meridian of longitude and western boundary of Nevada Territory, whenever the same is required by said first-named company, at cost, over that portion of the roads of said companies constructed under the provisions of this act.

SEC. 13. *And be it further enacted*, That the Hannibal and St. Joseph Railroad Company of Missouri may extend its road from Saint Joseph (83) *via* Atchison to connect and unite with the road through Kansas, upon filing its assent to the provisions of this act upon the same terms and conditions in all respects, for one hundred miles in length next to the Missouri river, as are provided in this act for the construction of the railroad and telegraph line first mentioned, and may for this purpose, use any railroad charter which has been or may be granted by the Legislature of Kansas;

(84) *Provided*, That if actual survey shall render it desirable, the said company may construct their road, with the consent of the Kansas Legislature, on the most direct and practicable route west from St. Joseph, Missouri, so as to connect and unite with the road leading from the western boundary of Iowa at any point east of the one hundredth meridian of west longitude, or with the main trunk road at said point; but in no event shall lands or bonds be given to said company, as herein directed, to aid in the construction of their said road for a greater distance than one hundred miles. And the Leavenworth, Pawnee, and Western Railroad Company of Kansas may construct their road from Leavenworth to unite with the road through Kansas (85.)

SEC. 14. *And be it further enacted*, That the said Union Pacific Railroad Company is hereby authorized and required to construct a single line of railroad and telegraph from a point on the western boundary of the State of Iowa (86) to be fixed by the President of the United States, upon the most direct and practicable route, (87) to be subject to his approval, so as to form a connection with the lines of said company at some point (88) on the one hundredth meridian of longitude aforesaid, from the point of commencement on the western boundary of the State of Iowa, upon the same terms and conditions, in all respects, as are contained in this act for the construction of the said railroad and telegraph first mentioned; and the said Union Pacific Railroad Company shall complete one hundred miles of the road and telegraph in this section provided for in two years after filing their assent to the conditions of this act, as by the terms of this act required, and at the rate of one hundred miles per year thereafter, until the whole is completed: *Provided*, That a failure upon the part of said company to make said connection in the time aforesaid, and to perform the obligations imposed on said company by this section, and to operate said road in the same manner as the main line shall be operated, shall forfeit to the government of the United States all the rights, privileges, and franchises granted to and conferred upon said company by this act. And whenever there shall be a line of railroad completed through Minnesota or Iowa to Sioux City (89) then the said Union Pacific Railroad Company is hereby authorized and required to construct a railroad and telegraph from said Sioux City upon the most direct and practicable route to a point on, and so as to connect with the branch railroad and telegraph in this section hereinbefore mentioned, or with the said Union Pacific Railroad, said point of junction to be fixed by the President of the United States, not further west than the one hundredth meridian of longitude aforesaid, and on the same terms and conditions as provided in this act for the construction of the Union Pacific Railroad aforesaid, and to complete the same at the rate of one hundred miles per year; and should said company fail to comply with the requirements of this act in relation to the said Sioux City railroad and telegraph, the said company shall suffer the same forfeitures prescribed in relation to the Iowa branch railroad and telegraph hereinbefore mentioned: (90.)

SEC. 15. *And be it further enacted*, That any other railroad company now incorporated, or hereafter to be incorporated, shall have the right to connect their road with the (91) road and branches provided for by this act, at such places and upon (92) such just and equitable terms (93) as the President of the United States may prescribe. Wherever the word company is used in this act, it shall be construed to embrace the words their

associates, successors, and assigns, the same as if the words had been properly added thereto.

SEC. 16. *And be it further enacted*, That at any time after the passage of this act all of the railroad companies named therein, and assenting thereto, or any two or more of them, are authorized to form themselves into a consolidated company; notice of such consolidation, in writing, shall be filed in the Department of the Interior, and such consolidated company (94) shall thereafter proceed to construct said railroad, (95) and branches, and telegraph line upon the terms and conditions provided in this act.

SEC. 17. *And be it further enacted*, That in case said company or companies shall fail to comply with the terms and conditions of this act (96) by not completing said road and telegraph (97) and branches within a reasonable time, or (98) by not keeping the same in repair, and use, but shall permit the same, for an unreasonable time, to remain unfinished, or out of repair, and unfit for use, Congress may pass any act to insure the speedy completion of said road (99) and branches, or put the same in repair and use, and may direct the income of said railroad and telegraph line to be thereafter devoted to the use of the United States, to repay all such expenditures caused by the default and neglect of such company or companies: *Provided*, (100) That if said roads are not completed, so as to form a continuous line of railroad, ready for use, from the Missouri River to the navigable waters of the Sacramento River, in California, by the 1st day of July, 1876, the whole of all of said railroads before mentioned and to be constructed under the provisions of this act, together with all their furniture, fixtures, rolling stock, machine shops, lands, tenements, and hereditaments, and property of every kind and character, shall be forfeited to and be taken possession of by the United States: *Provided*, That of the bonds of the United States in this act provided to be delivered for any and all parts of the roads to be constructed east of the one hundredth meridian of west longitude from Greenwich, and for any part of the road west of the west foot of the Sierra Nevada Mountains, there shall be reserved of each part and instalment twenty-five per centum, to be and remain in the United States Treasury, undelivered, until said road and all parts thereof provided for in this act are entirely completed; and of all the bonds provided to be delivered for the said road, between the two points aforesaid, there shall be reserved out of each instalment fifteen per centum, to be and remain in the treasury until the whole of the road provided for in this act is fully completed; and if said road, or any part thereof, shall fail of completion at the time limited therefor in this act, then and in that case the said part of said bonds so reserved shall be forfeited to the United States.

SEC. 18. *And be it further enacted*. That (101) whenever it appears (102) [thereby] that the net earnings of the entire road and telegraph, including the amount allowed for services rendered for the United States, after deducting all expenditures, including repairs and the furnishing, running, and managing of said road, shall exceed ten per centum upon its cost, exclusive of the five per centum to be paid to the United States, Congress may reduce the rates of fare thereon, if unreasonable in amount, and may fix and establish the same by law. And the better to accomplish the object of this act, namely, to promote the public interest and welfare by the construction of said railroad and telegraph line, and keeping the same in working order, and to secure to the government at all times (but particularly in time of war) the use and benefits of the same for postal, military, and other pur-

poses, Congress may, at any time, having due regard for the rights of said companies named herein, add to, alter, amend, or repeal this act.

(103) [SEC. 19. *And be it further enacted*, That persons in possession of government lands in the Territory of Nevada at the time of the passage of this act, except mineral lands, or who may, under the laws of Congress, have the constructive right to the possession of one hundred and sixty acres, should such lands be conveyed to said railroad company under this act, shall have the right to purchase the same from said company at the same price that the government shall fix for the sale of the adjoining lands.]

(104) SEC. 20. *And be it further enacted*, That the several railroad companies herein named are authorized to enter into arrangements with the Pacific Telegraph Company, the Overland Telegraph Company, and the California State Telegraph Company, so that the present line of telegraph between the Missouri river and San Francisco may be moved upon or along the line of said railroad and branches as fast as said roads and branches are built; and if said arrangement be entered into, and the transfer of said telegraph line be made in accordance therewith to the line of said railroad and branches, such transfer shall, for all purposes of this act, be held and considered a fulfilment on the part of said railroad companies of the provisions of this act in regard to the construction of said line of telegraph. And, in case of disagreement, said telegraph companies are authorized to remove their line of telegraph along and upon the line of railroad herein contemplated without prejudice to the rights of said railroad companies named herein.

(105) SEC. 21. *And be it further enacted*, That the corporation hereby created and the roads connected therewith, under the provisions of this act, shall make to the Secretary of the Treasury an annual report wherein shall be set forth—

First. The names of the stockholders and their places of residence, so far as the same can be ascertained.

Second. The names and residences of the directors, and all other officers of the company.

Third. The amount of stock subscribed, and the amount thereof actually paid in.

Fourth. A description of the lines of road surveyed, of the lines thereof fixed upon for the construction of the road, and the cost of such surveys.

Fifth. The amount received from passengers on the road.

Sixth. The amount received for freights thereon.

Seventh. A statement of the expense of said road and its fixtures.

Eighth. A statement of the indebtedness of said company, setting forth the various kinds thereof. Which report shall be sworn to by the president of the said company, and shall be presented to the Secretary of the Treasury on or before the first day of July in each year.

Attest.

J. W. FORNEY, *Secretary*.

STATISTICS OF POPULATION.

1. CENSUS OF NEW BRUNSWICK, 1851 AND 1861. 2. PROGRESS OF EDUCATION IN ENGLAND. 3. ENGLISH AND FRENCH NAVIES 4. PASSENGERS ARRIVING IN THE UNITED STATES.

CENSUS OF NEW BRUNSWICK, 1851 AND 1861.

In the May number of the *Merchants' Magazine*, we gave the official returns in detail of the census of 1861, compared with 1851, of Canada East and West, Nova Scotia, and Prince Edwards Island, together with a general summary of the whole of British North America. The detail returns of New Brunswick had not then been officially published. We are now able to give them, and they will be found below :

Counties.	Population, 1851.	Population, 1861.	Change in 10 years.
Albert	6,313	9,444	3,131
Carleton.....	11,108	16,373	5,265
Charlotte.....	19,938	23,663	3,725
Gloucester.....	11,704	15,076	4,372
Kent.....	11,410	15,854	4,444
Kings.....	18,842	23,283	4,441
Northumberland.....	15,064	18,801	3,737
Queens.....	10,634	13,359	2,725
Restigouche.....	4,161	4,874	713
St. John.....	38,475	48,922	10,447
Sunbury.....	5,301	6,057	756
Victoria.....	5,408	7,701	2,293
Westmorland.....	17,814	25,247	7,433
York.....	17,628	23,393	5,765
Total	193,800	252,047	58,247
Whites—male	98,454	128,593	30,139
“ female.....	93,172	120,661	27,489
Colored—male.....	505	730	225
“ female.....	553	851	298
Indians—male.....	567	625	58
“ female.....	549	587	38
Families.....	31,682	40,250	8,568
Sick and infirm	2,366	2,115	less 241
Deaf and dumb.....	.....	166	.....
Blind.....	.....	172	.....
Insane and idiotic .....	.....	518	.....
Children at school	18,892	31,973	13,081
Births.....	6,592	8,721	2,129
Marriages.....	.....	905	.....
Deaths.....	1,934	2,390	456

Age—		Change in 10 yrs.	
Under 6 years.....	35,602	45,413	9,811
6 and under 16 years.....	53,324	64,880	11,552
16 " 21 " 	21,991	28,913	6,922
21 " 40 " 	48,650	65,700	17,050
40 " 50 " 	15,305	20,113	4,808
50 " 60 " 	10,598	13,312	2,714
60 " 70 " 	5,618	9,153	3,535
70 years and upwards.....	2,588	4,563	1,975
Not specified.....	124	.....	124
Born in—			
New Brunswick.....	153,368	199,445	46,077
England and Wales.....	3,907	4,909	1,002
Scotland.....	4,855	5,199	344
Ireland.....	28,776	30,179	1,403
Other British Possessions....	1,550	8,721	7,171
Foreign countries.....	1,344	3,594	2,250
Roman Catholics.....	No returns.	85,238	.....
Baptists.....	"	57,730	.....
Episcopalians.....	"	42,776	.....
Presbyterians.....	"	36,072	.....
Methodists.....	"	25,637	.....
Other sects.....	"	4,594	.....
Males employed.....	39,738	70,339	30,601
Males in professions.....	456	1,304	848
Males in trade and commerce	1,292	3,151	1,859
Males in agriculture.....	18,601	35,001	16,400
Males in mechanics.....	6,822	11,181	4,359
Males at sea and fisheries ...	1,454	2,765	1,311
Males in mining.....	9,448	164	6,083
Males as laborers.....		15,267	
Males in other pursuits.....	1,665	1,506	less 159
Houses—inhabited.....	26,369	33,700	7,331
" uninhabited.....	1,546	1,537	less 9
" in course of erection	1,394	1,695	301
Stores, barns, and other build- ings.....	32,037	46,464	14,427
Places of worship.....	423	565	142
Halls—Temperance.....	No returns.	63	.....
" Orange.....	"	25	.....
" Masonic.....	"	10	.....
" Mechanics.....	"	8	.....
School houses.....	798	968	170
Other public buildings.....	No returns.	101	.....
Coal raised.....tons	2,812	18,244	15,432
Lime burned.....casks	35,599	42,965	7,366
Building stone.....tons	.....	14,080	.....
Gypsum quarried.....	5,465	13,550	8,085
Grindstones quarried....No.	58,849	42,476	16,373
Other minerals.....tons	.....	408	.....
Land holders.....No.	No returns.	24,114	.....

			Change in 10 yrs.
Land held.....acres	No returns.	3,787,524	.....
under cultivation.....	643,954	885,108	241,154
not improved.....	No returns.	2,902,416	.....
Value of land in occupation.	"	\$31,169,946	.....
Land—acres in grass.....	"	288,401	.....
wheat.....	"	20,112	.....
barley.....	"	5,227	.....
oats.....	"	96,268	.....
buckwheat.....	"	41,938	.....
Indian corn.....	"	635	.....
rye.....	"	3,944	.....
turnips.....	"	3,310	.....
potatoes.....	"	37,667	.....
carrots.....	"	196	.....
Crops—			
Tons of hay.....	225,093	324,160	99,067
Bushels of wheat.....	206,635	279,775	73,140
barley.....	74,300	94,679	20,379
oats.....	1,411,164	2,655,883	1,245,719
buckwheat.....	689,004	904,321	215,317
Indian corn.....	62,225	17,420	less 44,805
rye.....	No returns.	57,504	.....
turnips.....	539,803	634,364	94,561
potatoes.....	2,792,394	4,041,339	1,248,945
carrots.....	47,880	43,870	2,710
mangel wurtzel.....		6,720	
beans.....		5,228	
peas.....	42,663	25,449	less 11,986
timothy seed.....	No returns.	7,321	.....
Pounds of turnip seed.....	"	1,851	.....
of clover seed.....	"	16,985	.....
of flax seed.....	"	14,057	.....
maple sugar.....	350,957	230,006	less 120,951
Horses.....	22,044	35,347	13,303
Milch cows.....	50,955	60,437	9,482
Working oxen.....	106,263	19,111	less 14,238
Other cattle.....		72,914	
Sheep.....	168,038	214,092	46,054
Swine.....	47,932	73,995	26,063
Pork slaughtered.....lbs.	No returns.	3,692,169	.....
Butter produced.....	3,050,939	4,591,477	1,540,438
Cheese produced.....	No returns.	218,067	.....
Honey produced.....	"	32,739	.....
Beeswax produced.....	"	842	.....
Wool produced.....	"	633,757	.....
Home-made goods.....	"	711,394	.....
Saw mills—steam.....	584	80	305
water.....		609	
Grist mills—steam.....	261	6	89
water.....		273	
Flouring mills—water.....		71	

Tanneries—steam.....	125	{	22	1
water.....			10	
hand.....			94	
Foundries—steam.....	11		21	10
Weaving and carding mills..	52		70	18
Hand looms.....	5,475		5,134	less 341
Breweries.....	8		9	1
Ale and beer .....gallons	100,975		329,040	228,065
Distilleries.....	.....		1	1
Spirits.....gallons	.....		3,000	3,000
Other factories—steam.....	94	{	31	less 27
water.....			36	
Leather produced.....	\$225,825		\$290,548	\$64,723
Saddlery produced.....	.....		77,750	77,750
Boots and shoes produced...	446,835		381,717	less 65,118
Hats produced.....	31,800		50,500	18,700
Soap produced.....	97,810		74,000	less 23,810
Candles produced.....	99,300		68,800	less 31,000
Furniture produced.....	67,360		117,593	50,233
Wooden ware produced	102,525		129,158	26,633
Iron castings produced.....	100,125		202,500	102,385
Machinery produced.....	No returns.		193,111	.....
Oil, crude & refined produced	"		72,429	.....
Other manufactures produced	"		712,000	.....
Total manufactures produced.	"		2,419,684	.....
Fish—pickled, dried, etc....	414,160		518,531	104,371
Imports.....	\$4,077,655		\$7,080,170	\$3,002,515
Exports.....	3,290,090		5,367,110	2,077,020

PROGRESS OF EDUCATION IN ENGLAND.

Twenty years ago only 67 in every 100 men that married in England signed their names upon the register, and 51 in every 100 women, and 13 years later the percentage was but 69.6 of the men and 56.1 of the women; but in the last seven years, a period which probably shows in its marriages the result chiefly of the education of the years 1840-45, or thereabouts, the advance has been much greater, and the registrar-general reports that in 1860 the proportion of men writing their names had risen to 74.5, and women to 63.8. In the whole 20 years the proportion of men who write has risen from being only two-thirds to three-fourths, and of women from being a half to be nearly two-thirds, which may be expressed with tolerable accuracy by saying that where four persons had to "make their mark" then, only three do so now. This is for all England; but the rate of progress has not been the same in every part of the kingdom. In Staffordshire the 40 per cent of women able to write 20 years ago has only become 48, and the 57 per cent of men 60. Among the Cornishmen the 64 per cent of twenty years since has barely improved into 65; and in 1860 scarcely 57 per cent of the women who married wrote their names. In Monmouthshire and Wales the proportion of women who had learnt to write was much fewer; in South Wales only 42 per cent. In as many as twenty counties in England, mostly agricultural districts, and also in Wales, the proportion of men who can write is below the average, often greatly be-

low it. Of the women who, in 1860 married in Bedfordshire, only 64.8 per cent signed the register; in the West Riding only 53.4; in Lancashire only 45.9. Of the women of England who became wives in 1860 more than 60,000 have the disadvantage of being unable to write their own names; more than 13,000 even of the women of busy and acute Lancashire. In one marriage in every six in all England both man and woman were unable to write.

ENGLISH AND FRENCH NAVIES.

The following are the official statements of the size and condition of the English and French navies:

A RETURN SHOWING THE NUMBER OF STEAM SHIPS AFLOAT AND BUILDING, TOGETHER WITH THE NUMBER OF EFFECTIVE SAILING SHIPS IN THE ENGLISH NAVY ON THE 1ST FEBRUARY, 1862.

Class of ships.	Steam.			Effective sailing ships afloat.	Total steam and sailing.
	Afloat.	Building.	Total.		
Ships of the line.....screw	57	4*	61	9	70
Frigates.....	37	$\left\{ \begin{array}{l} 2\dagger \\ 5* \end{array} \right\}$	44	14	67
Frigates.....paddle	9	..	9	..	9
Block ships.....screw	9	..	9	..	9
Iron-cased ships.....	4	11	15	..	15
Corvettes.....	20	4	24	..	24
Sloops.....	41	7	48	7	88
Sloops.....paddle	33	..	33	..	33
Small vessels.....	19	..	19	..	19
Dispatch vessels.....	..	4	4	..	4
Gun-vessels.....screw	31	4	35	..	35
Gunboats.....	185	$\left\{ \begin{array}{l} 8 \\ 4* \end{array} \right\}$	197	..	197
Tenders.....	5	..	5	1	50
Tenders.....paddle	44	..	44	..	44
Mortar ships.....screw	4	..	4	..	4
Floating batteries.....	7	..	7	..	7
Troop and store ships.....	13	2	15	..	17
Troop and store ships.....paddle	13	..	2	..	13
Yachts.....screw	1	..	1	..	5
Yachts.....paddle	4	..	4	..	4
Mortar vessels and floats.....	..	..	..	79	79
Total screw.....	414	$\left\{ \begin{array}{l} 38 \\ 13* \end{array} \right\}$	465	..	465
Total paddle.....	111	4	115	..	115
Grand total.....	525	55	580	110	690

STATE OF FRENCH STEAM NAVY, JANUARY 1, 1862.

Class.	Afloat.	Building.	Total.	Class.	Afloat.	Building.	Total.
Ships of the line...	36	1	37	Avisos, paddle†...	85	8	93
Frigates, iron-plated	6	10	16	Iron-plated floating			
screw....	24	5	29	batteries.....	12	2	14
paddle....	18	.	18	Gunboats.....	53	5	58
Corvettes, screw....	7	.	7	Transports.	34	9	43
paddle....	9	.	9				
Avisos, screw.....	35	1	36	Total.....	319	41	360

* The building of these vessels have been suspended.

† Includes Constance, whose conversion to a screw ship is not yet completed.

‡ Five of these are small vessels built in compartments, and can be taken to pieces for the purpose of easy transport.

IN COMMISSION.

Ships of the line	14*	Avisos, screw	26
Frigates, iron-plated.....	4	paddle.....	58
screw	14	Gunboats.....	15
paddle.....	6	Transports.....	26
Corvettes, screw.....	8		
paddle	6	Total.....	178

STATE OF FRENCH SAILING NAVY, JANUARY 1, 1862.

Class.	Afloat.	Building.	Total.	Class.	Afloat.	Building.	Total.
Ships of the line..	7	.	7	Small vessels...	26	.	26
Frigates	28	.	28	Transports.....	32	.	32
Corvettes.....	12	1	13				
Brigs.....	19	2	21	Total.....	119	3	122

IN COMMISSION.

Ships of the line.....	1†	Small vessels.....	23
Frigates.....	9	Transports.....	22
Corvettes.....	3		
Brigs.....	5	Total.....	68

The steam navy of the two countries, on which the principal dependence must be placed by both sides, is as follows:

Total steam navy of England built and building..	580
Total steam navy of France built and building..	360

Difference in favor of England..... 220

whereas an excess of 180 would be adequate for our purpose. In ships of the line, England has, (including block ships,) 85 against France 37. In frigates, a most important kind of vessel now-a-days for the protection of commerce, the account stands:

English frigates built and building.....	67
French frigates built and building.....	63

Difference only..... 4

IN GUNBOATS.

The number of English gunboats built and building is.	197
The number of French gunboats built and building is.	58
Excess.....	139

Of iron-plated vessels, the figures given in these papers do not correspond with those given by Lord PALMERSTON, either as far as respect the English navy or the French. He said the French had 36, and the English 25. The returns give:

FRENCH.

Built.....	6	Building.....	10	Total.....	16
------------	---	---------------	----	------------	----

* Two of which for gunnery instruction.

† Hospital ship in China.

and they can only be raised to the number mentioned by Lord PALMERSTON, by including

Floating batteries mentioned in the return.....	14
Seven additional mentioned in a subsequent return	7
	—
	21

On the other hand, the English list only gives 15 iron-cased ships, whereas it is said she now has 25, though some of these too *may* be floating batteries. *Even now*, therefore, we have no adequate information upon this material item.

PASSENGERS ARRIVING IN THE UNITED STATES.

The annual report of the Secretary of State of the number, &c., of passengers arriving in the United States during the year ending December 31, 1861, is just published. The tables furnished are very unsatisfactory, the usual summary being omitted. After wandering through the long columns of figures, we are able to present the following totals:

	Males.	Females.	Total.
Total arrivals in United States in 1861.....	70,729	41,946	112,675
Arrivals of citizens of United States.....	15,664	4,926	20,590
	—	—	—
Arrivals of foreigners.....	55,065	37,020	92,085

We have prepared from former reports, as published each year in the *Merchants' Magazine*, the following comparative tables:

THE NUMBER OF ARRIVALS FROM THE UNITED STATES SINCE 1790.

	Number.	Per annum.		Number.	Per annum.
1790 to 1810...	120,000	12,000	1850 to 1860...	3,320,866	332,086
1810 to 1820...	114,000	11,400	1860 to 1862...	216,296	107,648
1820 to 1830...	203,979	20,397			
1830 to 1840...	778,500	77,850	Total, 1790 to 1862	6,295,991	
1840 to 1850...	1,542,850	154,285			

Thus it will be seen, that during the twelve years, from 1850 to 1862, many more passengers arrived than during the whole of the sixty preceding years. The largest arrivals were from the year 1850 to 1857. Since 1857 the number each year has been much less, as will be seen from the following table:

STATEMENT OF THE NUMBER OF PASSENGERS ARRIVING IN THE UNITED STATES BY SEA FROM FOREIGN COUNTRIES, FROM DECEMBER 31, 1850, TO DECEMBER 31, 1861.

	Number.
December 31, 1850, to December 31, 1851.....	418,828
" " 1851, to " " 1852.....	397,348
" " 1852, to " " 1853.....	400,982
" " 1853, to " " 1854.....	460,474
" " 1854, to " " 1855.....	230,476
" " 1855, to " " 1856.....	224,496
" " 1856, to " " 1857.....	271,558
" " 1857, to " " 1858.....	144,906
" " 1858, to " " 1859.....	155,509
" " 1859, to " " 1860.....	108,621
" " 1860, to " " 1861.....	112,675

JOURNAL OF INSURANCE.

1. DAMAGES FROM PETROLEUM—ACTION OF THE COMMON COUNCIL OF BROOKLYN TOO HASTY—PROTEST OF MERCHANTS. 2. MUTUAL LIFE INSURANCE COMPANY.

DAMAGES FROM PETROLEUM—ACTION OF THE COMMON COUNCIL OF BROOKLYN TOO HASTY—PROTEST OF MERCHANTS.

OUR fire insurance companies feel that the destructive fire in Williamsburgh should incite everywhere city authorities to enact rules for the storage of petroleum, kerosene, and the other inflammable oils which have, within a few years, become so important an article of commerce. The utmost care is necessary in handling these substances, and city ordinances ought to provide regulations that will ensure safety, and penalties for their violation by all who store them. If the wind had been westerly, at the time of the fire, the greater part of Williamsburgh would most likely have been destroyed, and this through the carelessness of some person while handling petroleum, which was unloading from a lighter alongside a dock on which a great quantity of the same exceedingly combustible oil was stored. We are told that a cask fell and broke open; the gases arising from the spilled oil caught fire, as is reported, from a lighted cigar in the mouth of a laborer on the vessel, and in an instant the lighter was in flames. As the flames reached the remainder of her cargo, barrel after barrel exploded, increasing the fierceness of the flames, which presently caught on the dock and spread destruction all around.

Yet, although our authorities should undoubtedly examine into this matter and make stringent regulations respecting the storage of petroleum, still there can be no doubt in the mind of any but that every privilege and facility, "consistent with the safety of adjoining interests," should be afforded this important and growing trade. Under the influence of such an accident as that at Williamsburgh, there is danger of acting too hastily and without proper consideration and regard for the heavy interests involved. We think the course taken by the Common Council of Brooklyn is open to this criticism. It may be *necessary* to pass equally stringent regulations, but in our opinion the necessity for it has not yet been shown. One fire certainly does not prove it. Let there be such an investigation of the subject as the great interests at stake demand and are entitled to, before we adopt such sweeping measures. The following is the ordinance adopted by the Brooklyn Common Council:

ORDINANCE.

An ordinance to prohibit the storage of crude petroleum, rock or earth oil, and to regulate the vending the same where refined, within the limits of the city of Brooklyn.

The Common Council of the city of Brooklyn do ordain as follows:

SEC. 1. It shall not be lawful for any person to store or receive on storage within the limits of the city of Brooklyn, except as provided in section 3 of this ordinance, any crude petroleum, rock or earth oil, under the penalty of \$10 for each barrel, and for each and every day the same shall be stored, the penalty to be recovered from the owner or owners thereof, or from the party or parties storing or receiving the same on storage.

SEC. 2. Any person or persons owning or having on storage any petroleum, rock or earth oil, within the limits of the city of Brooklyn, shall cause the same to be removed within twenty days from the passage of this ordinance, under the penalty of \$500 for each and every day thereafter until full compliance with the provisions hereof.

SEC. 3. It shall not be lawful for any person or persons to keep at any one time, either for use or for the purpose of manufacture, within the limits of city of Brooklyn, an amount exceeding twenty barrels of crude petroleum, rock or earth oil, and then only in sheds or open ground situate not less than 1,000 feet from any other building, and not less than 200 feet from any dock or pier, under the penalty of \$250 for each and every offense, and for each and every day he or they shall so continue to keep the same.

SEC. 4. No person or persons shall hereafter keep, sell, or dispose in any way, within the limits of the city of Brooklyn, any rectified petroleum, rock, or earth oil, commonly designated by the name of kerosene oil, which contains benzine or naphtha, or both, in quantities sufficient to ignite at a temperature of 100° Fah.; and no such oil shall be kept or sold of less density than 45½° Reaumer, under the penalty of \$500 for the first offence, and a like penalty, or imprisonment for six months in the county jail, or both, at the discretion of the magistrate before whom a conviction shall be had, for every offense thereafter.

SEC. 5. It is hereby made the duty of the fire wardens in the city of Brooklyn to examine into and make complaint to any jurisdiction of the subject matter, of any and all violations of this ordinance; and all penalties collected upon complaint made by said fire wardens, one-half thereof shall be paid over to the Widows' and Orphans' Fund of the Fire Department in the District in which the violation of the ordinance shall occur.

At the same meeting a motion was made and adopted, that the joint fire committee be instructed to hear the views and objections, if any be offered, by parties interested in this business, to the operation of this law, and report the same to the Board.

Thus, it would seem that this action was not intended to be final.

On the 10th of June a large and enthusiastic meeting was held by the dealers in petroleum oil, at 34 Pine-street, in the room lately occupied as the Traders and Mechanics' Exchange, to take into consideration the above ordinance, in reference to the storage of this article within the city limits of Brooklyn. The ordinance in question, being calculated to affect the trade most injuriously, it was deemed an act of justice due to themselves to make an effort to induce the Common Council to re-consider its resolve. Mr. A. C. FERRIS was President, and Mr. J. WALES Secretary of the meeting. Remarks were made by the Chairman and Secretary, and also Professor JERLEY, after which it was—

Resolved, That the ordinance of the Common Council of Brooklyn, passed June 2, 1862, in regard to the storage and manufacture of petroleum oil within the limits of that city, we think, was made without proper inquiry in regard to the heavy interests involved.

Resolved, That the demand for the crude oil and its products having become a matter of inquiry and demand from all parts of the civilized world, and being an article of large export as well as home use, we think the Hon. Aldermen should give to this trade every privilege consistent with the safety of adjoining interests, and afford us such facilities as this important and growing trade requires.

Resolved, That a committee of five be appointed by this meeting, to wait upon the committee appointed by that honorable body, for conference in regard to these interests.

The committee consisted of Messrs. J. G. WILLIAMS, B. O. KETCHUM, T. G. STEARNS, I. P. RUST, and M. J. FRISBIE—(also, A. C. FERRIS and J. WALES, ex-officio.) The committee to take charge of the interests involved, with authority to take such action as may be required, and to call future meetings.

We trust the subject will receive the consideration it deserves, before it is finally disposed of.

MUTUAL LIFE INSURANCE COMPANY.

All of us were brought up to believe that corporations have no soul. We wish now, however, to make a record of the fact that the idea is exploded. Still, we cannot yet believe that the converse of the proposition is true—that *all* corporations have souls. The true guide to a correct decision on this point is, in our opinion, this—that where a corporation has a warm hearted President, the body corporate itself partakes and becomes a part of his enlarged humanity.

We think the following note to the Sanitary Commission illustrates this proposition :

THE MUTUAL LIFE INSURANCE Co., }
94 Broadway, New York, May 17, 1862. }

J. S. Newberry, M. D., Resident Secretary of the Western Department of the United States Sanitary Commission, Cleveland, Ohio.

DEAR SIR: In compliance with the instructions of our trustees, I have the gratification to enclose our check, payable to your order, for \$1,000, to be used in the humane and patriotic work of relieving the sick and wounded of our army, in which yourself and your associates are so zealously and efficiently laboring. I am, with much respect,

Your obedient servant,

F. R. WINSTON, President.

NAUTICAL INTELLIGENCE.

1. COENTIES REEF. 2. THE WOLF ROCK LIGHTHOUSE.

COENTIES REEF.

THE Submarine Engineering Company have obtained from the city government of New York the privilege of postponing the completion of their work on Coenties Reef until next spring. This postponement is made necessary, and fully justified, by the useful services which the company are now performing for the United States Government in the department of North Carolina, and which require all their spare diving bells and best engineers. It is believed that the interests of commerce will not suffer to any appreciable extent from this delay in the removal of Coenties Reef. Portions of the rock have been blasted off to the specified depth of twenty feet below low water, and the remainder has been reduced from sixteen to fourteen feet. This is a decided improvement, and will permit the free passage of a large number of vessels which formerly could not get over the reef. With regard to ships of large draught, pilots must exercise their usual caution in steering clear of it. With ordinary care accidents may be avoided.

THE WOLF ROCK LIGHTHOUSE.

Midway between the Lizard Point and the Scilly Islands, at a distance of about two and twenty miles from each, lies a dangerous rock called the Wolf. It is about 58 yards long and 38 yards broad at low water; bold and steep on all sides. The set of the tides in the locality varies towards every point of the compass in the course of twelve hours; ordinary springs run very rapidly, and during S.W. gales and stormy weather, there are furious eddies, making it very hazardous to approach within a considerable distance of the rock; the rise of tide at such times is also full ten feet above the ordinary springs. The sea runs terrifically, as with the full force of the swell of the Atlantic it precipitates itself against the rock. In calm weather the noise is heard at a great distance.

It will be easily imagined that this rock is very difficult of access, except in very fine weather. It was only after long, patient, and per-evering toil, that the attendant difficulties were surmounted about twenty years ago, and a beacon was completed, having the centre of its globe 24 feet above the level of the sea at high water. Portions of the wrecks of several vessels jammed into the interstices of the rock were discovered, and told a fearful tale of the loss of life and property on this treacherous rock.

It was found that the beacon was so frequently completely buried in the waves that to make it effective it would be necessary to give it greater elevation. In 1848 the stone beacon was cased outside with thick iron plates, (perforated,) and a new iron mast and globe erected, with the centre ten feet higher than the former one. The total cost incurred in the erection of this beacon, with the last improvements, was £11,298 4s. 1d.

It has long been desired that a lighthouse should be substituted for this beacon, and in the course of last autumn steps were taken by the Trinity Corporation for commencing operations on the Wolf. The premises of Messrs. BOLITHO, at Penzance, being found suitable for a building yard, and furnished with all other necessary accommodation, were rented, and shortly afterwards MR. JAMES DOUGLAS commenced his new undertaking. Owing to a long prevalence of weather unsuitable for working on the rock, the principal operations have hitherto been preparatory; but as summer comes on the work will be prosecuted with that energy and sagacity for which the family, who have for many years been employed in the erection of rock lighthouses, are eminently distinguished.

The diameter of the base will be 40 feet; over nine-tenths of this space the rock has to be squared down to 3 ft. 6 in. below the level of the upper point of the rock, and over the remaining tenth of the diameter 1 ft. 6 in. deeper, so that the lower courses will be built five feet in the solid rock, and sixteen feet below the level of high water springs. The first nineteen courses bringing the tower up to 38 feet from the base, will be of solid granite, the diameter of each succeeding course being reduced by 9 inches, that of the tower at the above elevation is reduced to 25 feet at this level, and on the south-east side of the tower will be the entrance door, made of strong metal, fitting so exactly as to be impervious to water, and capable of resisting the utmost impetuosity of the waves. The ascent to the door is by thirty-six metal steps, built in with the solid granite. From the level of this entrance door, a circular staircase, left out of the centre of the solid, leads to the water-room, the door of which forms a landing place for stores. The thickness of the walls of the six rooms above the solid decrease gradually from six to two feet, the height of each room being ten feet, with each stone floor forming an arch overhead, and nine inches thick—all granite.

In the store-room is a crane for hoisting in the supplies,—this is ingeniously contrived to launch out, when required, and when not in use it is completely housed, leaving the aperture through which it slides impenetrable by water. The parapet will project two feet, forming a gallery 3 ft. 6 in. round the lantern, with a strong metal rail surrounding it.

The lantern will be 19 feet high and 14 feet in diameter, resting on a five feet pedestal, and surmounted by a five feet cowl and four feet gilt vane. The roof and frame-work of the lantern are of gun-metal. The centre of the lantern is to be 110 feet above the high water spring tides. The crest of the waves, however, will frequently go clean over it, as proof of which, the fog-bell affixed to the gallery of the Bishop Rock Lighthouse—one hundred feet above the level of high water mark—was broken off by the sea in a heavy gale of wind during the winter of 1860. The part from which it was broken will be amongst the remarkable curiosities at the great Exhibition this year.—*Plymouth Paper.*

MERCANTILE MISCELLANIES.

1. "I DON'T LIKE MY BUSINESS." 2. VIOLENT DEATHS IN ENGLAND AND WALES.

"I DON'T LIKE MY BUSINESS."

THERE is no greater fallacy in the world than that entertained by many young men, that some pursuit in life can be found wholly suited to their tastes, whims, and fancies. This philosopher's stone can never be discovered; and every one who makes his life a search for it will be ruined. Much truth is contained in the Irishman's remark: "It is never asy to work hard." Let, therefore, the fact be always remembered by the young, that no life-work can be found entirely agreeable to a man. Success always lies at the top of a hill; if we would reach it, we can do so only by hard, persevering effort, while beset with difficulties of every kind. Genius counts for nothing in the battle of life! determined, obstinate, perseverance in one single channel, is everything. Hence, should any one of our young readers be debating in his mind a change of business, imagining he has a genius for some other, let him at once dismiss the thought as he would a temptation to do evil. If you think you made a mistake in choosing the pursuit or profession you did, don't make another by leaving it. Spend all your energies in working for, and clinging to it, as you would to the life-boat that sustained you in the midst of the ocean. If you leave it, it is almost certain that you will go down! but if you cling to it, informing yourself about it until you are its master, bending your every energy to the work, success is certain. Good, hard, honest effort, steadily persevered in, will make your love for your business or profession grow. Since no one should expect to reach a period when he can feel that his life-work is just the one he could have done best and would have liked best. We are allowed to see and feel the roughness in our own pathway, but not in others'. Yet all have them.

VIOLENT DEATHS IN ENGLAND AND WALES.

In the year 1860, for which the returns have just been issued, 14,775 persons in England and Wales died a violent death—one person in every 1,328. Nearly 13,000 of the deaths are ascribed to accident or negligence; among them 5,417 were caused by fractures and contusions, 1,061 by suffocation, (700 at not a year old), 2,264 by drowning, and 3,166 by burns and scalds. The exposure of men to fire in coal mines and works causes their deaths from burns during the prime of life to outnumber those of women, notwithstanding the more combustible dress of the latter, but after 55 the deaths of women from this cause are more than double those of men, and, says Dr. Farr, the old women who are now burnt to death far exceed in numbers those who in cruel times were burnt as witches. In 1860, at least 1,365 persons wilfully sought their own destruction, one in 14,286 of the population; but there is no doubt that many suicides by drowning are classed as accidental deaths.

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THE
MERCHANTS' MAGAZINE
AND
COMMERCIAL REVIEW.

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AUGUST, 1862.  
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TOBACCO: HISTORICAL, STATISTICAL, DIPLOMATIC, AND LITERARY.

NO. II.

WHILE the first part of this paper* was passing through the press, the European mails brought us some notices of the Tobacco question in the Paris journals; called forth by the mysterious movement of the French Ambassador, M. MERCIER, from Washington to Richmond. Whatever the cause of the visit, it has resulted in attracting considerable attention both in this country and in Europe, to the state of the tobacco trade with which—in its French relation—M. MERCIER's mission was supposed to have been connected. The statistics furnished by the Parisian papers substantiate those given by us; while their views are, in many respects, evidently translated from the American press. Both, however, are worthy of attention, as giving what is put forth as French opinion on a subject, the importance of which is not likely to be overestimated at this juncture. French journalists are fully alive to the necessity of Tobacco as a means of raising revenue, and in offering an explanation for any apparent apathy of interest in the matter, the organ of Prince NAPOLEON gives a very direct reason why the Tobacco question must command the earnest solicitude of the French Government. If, it says, this question has not up to this time occupied *public* attention, it is because it only directly interests the government. Nevertheless, it has a real importance, for the government draws from Tobacco an annual revenue of nearly two hundred millions of francs.

After proving this position by the *Regie* Statistics, (similar in a degree to those published in greater detail by us,) the *Opinion Nationale* proceeds to acknowledge that the French Government, usually so far-seeing, has been deceived on the Tobacco as well as on the cotton question. A year ago the

* See the *Merchants' Magazine* June, 1862.

Moniteur declared that the fears for the then present cotton crop were exaggerated, and that those for the next (1862) had no foundation. This erroneous view was also applied to Tobacco, and, as a consequence, it is admitted that the French Government has left itself utterly unprovided for a Tobacco crisis. In the words of the *Opinion Nationale*—it did not think it its duty last year to encourage the cultivation of Tobacco in Algeria, the Antilles, and Guiana, and if the war between the North and the South lasts for another year, it will find itself deprived of Tobacco, in the same way as the cotton manufacturers are deprived of supplies of cotton. The writer recognizes an American monopoly, at least so far as the character of the product is concerned, in Tobacco as well as cotton. "Just as the cotton of Georgia, Alabama, and Louisiana cannot be replaced by the cotton of India, Brazil, or Egypt, so the Tobacco of Virginia and Kentucky are of a quality which cannot be found in the same articles from Brazil or Algeria."

In further illustrations of the demand for American Tobacco, he writes : "The same kinds of Tobacco do not everywhere produce the same qualities. Climate and soil greatly influence the taste and odor of the plant, and in order to supply consumers with a quality always the same, the State (*Regie*) manufacturers have adopted a mixture of different kinds of Tobacco, which never changes. Smoking tobacco is prepared with Kentucky and Maryland leaves, and with the indigenous tobacco of Pas-de-Calais and the Lower Rhine. Snuff is made by an admixture of Virginia and Kentucky tobacco, and of the leaves grown in the departments of the North, Lot, Lot-et-Garonne, and in Ile-et-Vilaine. Chewing tobacco is generally either pure Virginia or Kentucky.

"An important deficit in the supply of tobacco would cause grave embarrassments to all the governments of Europe; but more especially to those of England, France, and Holland. And it is to be feared that this deficit may be fatally produced within a year.

"The most fertile districts of Virginia are at this moment overrun and devastated by immense armies, and the majority of the slaves are in flight; while in the districts far removed from the theatre of war, the planters have neglected tobacco to sow wheat and corn. The Virginia crop will be reduced from eighty thousand to eight thousand *boucauts*. The same result will follow in Kentucky and Tennessee.

"An inexorable fatality seems to be following tobacco in this crisis. During two consecutive years the crop has almost completely failed in Brazil, and in the island of Cuba the plant was suddenly struck with a disease last year, which, added to a disastrous drought, has greatly reduced the crop. During the year 1861 there have been exported from Havana 1,977,892 pounds of leaf tobacco, and 50,119,000 segars less than in the year 1860. The Havana journals fear that the reduction will not be less than ten times more considerable."

Confronting these facts, and embracing these views, it is not difficult to see "how important is the role assigned to the tobacco which comes from the United States."

With the array of statistics already given, any thinking mind will be able to follow out the subject in a much more satisfactory, and certainly more agreeable, manner, than if we were to twist the figures into the elaboration of any particular theory. But in good truth there does not seem to be much ground for any variety of theories about the matter. The ques-

tion seems to be one of a very simple and direct nature, based upon the laws which govern demand and supply. But then the politician, more eager to dispute than to define, and always more anxious to tempt half a dozen distempered ideas than to boldly grasp a single healthy one, propounds many inquiries as to what probable revenues can be relied on when a supply is not equal to a demand, *that* demand, involving not the comfort or good-will of a people, but the necessary funds of certain governments which are as daring as they are astute, as irascible as diplomatic, as designing as dignified, and altogether as unscrupulous as friendly. Of course we will not enter upon so hazardous an effort as to either meet the exigencies, or reply to the inquiries of the politician, being at least like GRAMMONT, of whom ANTHONY HAMILTON has given us so graphic and gallant an account, in one respect, to wit, "a sworn enemy to all long speeches."

Having given such facts and figures as seem to us most necessary for a comprehensive understanding of the Tobacco question, we prefer rather to lounge, by way of rest, through fresh fields, especially those of a literary and poetical nature, wherein the Tobacco plant has won either the esteem or the animadversion, the observant culture or the obdurate criticism of the poet and man of letters. In this pastime a very agreeable companion is our friend the author of "A Paper of Tobacco," who, in other days, has indulged himself in a somewhat similar excursion, and, consequently, is full of the suggestiveness which experience gives.

Not the least picturesque of his reminiscences, are those connected with the early days of tobacco, when, about the end of the sixteenth century, the weed was highly and largely affected by the wits and gallants of the time. To wear a pair of velvet breeches, with diamond patches or slashes of silk, an enormous starched ruff, a gilt-handled sword, and a Spanish dagger; to play at cards or dice in the chambers of the groom-porter, and smoke tobacco in the tilt-yard or in the play house, were then the grand characteristics of a man of fashion. Tobaccoists shops were common, comparatively speaking; and as the article, which appears to have been sold at a high price, was indispensable to the gay "man about town," he generally endeavored to keep his credit good with his tobacco merchant. Poets and pamphleters laughed at the custom, though generally they seem to have had no particular aversion to an occasional treat to a sober pipe and a pottle of sack. Your men of war, who had served in the Low Countries, and who taught young gallants the noble art of fence, were particularly fond of tobacco; and your gentlemen adventurers, who had served in a buccaneering expedition against the Spaniards, were no less partial to it. Sailors—from the captain to the ship-boy—all affected to smoke, as if the practice were necessary to their character; and to "take tobacco" and wear a silver whistle, like a modern boatswain's mate, was the pride of a man-of-war's man. The quid does not then appear to have been *chawed* either by seamen or landmen—though, according to Captain MARYATT, it is one of the true indispensables of a modern middy—*Peter Simple* to wit: "You must learn to chaw backey, drink grog, and call the cat a beggar, and then you knows all a midshipman's expected to know now-a-days." Subsequently the sailors became ruminant, on the pretext that chewing tobacco was good for the scurvy.*

"To take Tobacco" was the fashionable phrase, and the *whiff* the name

* "A Paper of Tobacco," &c.

by which the custom was known among the vulgar. To *drink* tobacco was also applied to the use of the weed, from a prevalent custom of partially swallowing the smoke and then blowing it out through the nostrils; an amusement which still seems to have some attractions for amateurs. JOSEPH HALL, afterwards Bishop of Norwich, "characterized by the learned," says CAMDEN, "as the English Seneca, dexterous at Controversy, not unhappy at Comments, very good at Characters, better in Sermons, best of all in Meditations and Contemplations," found, in this nose-smoking custom, a simile to illustrate the decline of hospitality, in his Satires.*

"Look to the tow'red chimnies which should be
The wind-pipes of good hospitality,
Through which it breatheth to the open aire
Betokening life and liberal welfare ;
Lo ! there th' unthankful swallow takes her rest,
And fills the tunnell with her circled nest ;
Nor half that smoke from all his chimnies goes
Which one tobacco-pipe drives through his nose."

Of the "gentlemen adventurers who served against the Spaniards," Sir WALTER RALEIGH was a famous type, and particularly so in regard to leading the fashion in smoking. A passage in one of HOWEL's letters, dated January 1st, 1647, which informs us that RALEIGH won a wager of good Queen Bess on the weight of smoke in a pound of tobacco, is very cleverly used by the talented author of "SHAKESPEARE and his friends."

"May it please your majesty," said Sir WALTER RALEIGH, coming into the room with his pipe in his hand, "I have smoked out the quantity of tobacco agreed upon."

"Haste thee and weigh the smoke, then," replied the queen, with a chuckle of delight, which was echoed by those around her.

"I will tell your Majesty the weight of the smoke in a few seconds," responded RALEIGH, taking in his hand a small pair of ivory scales which stood on an adjoining table.

"Thou wilt never get so much smoke into such tiny balances, Sir WALTER RALEIGH," observed her Majesty with the same tone, "so thou mayest as well acknowledge that the wager is ours."

"Your Majesty will be pleased to observe that the weight in this scale is the exact weight of the ashes left in the pipe," replied Sir WALTER, showing the scales, in one of which he had put the ashes at even balance. "Now, if your Majesty will graciously remember the weight of the unburnt tobacco upon which the experiment was made, by subtracting from it the weight of the ashes, which I have here ascertained, the sum produced will be the exact weight of the smoke."

Sir WALTER RALEIGH, with the scales still in his hand, wore on his noble features, at this moment, an expression of very evident satisfaction, as he turned round and looked down upon his audience—some of whom seemed incredulous, others wondering, the rest puzzled what to think ; but all were

* *Virgidemiarum*, 1797-9. HALL alludes to his being the first professed writer of satires in England.

"I first adventure ; follow me who list,
And be the second English Satirist."

His satires have elicited the most enthusiastic encomiums of POPE WARTON HALLAM, CAMPBELL, HENRY NEELE, and others.

waiting in silence the effect of his announcement upon their sovereign, whose abler understandings perceived at once the accuracy of the result, though it was so different from what they had expected, and felt as if she could not enough admire the simplicity of the method which had so easily proved what she thought had been impossible.

"The gold is thine, Sir WALTER RALEIGH," said she, rising from her chair with a dignity none knew better how to put on, as she placed a well-filled purse in his hand, "and fairly is it won. There have been many laborers in the fire whose vast undertaking have ended in smoke; but thou art the first whose smoke was ever turned into gold."

From the same letter in which HOWEL alludes to this clever conceit of RALEIGH, we learn that the Spaniards and Irish were largely given to the use of tobacco in its pulverized form of "smutchin," (snuff) which "mightily refreshes the brain." He believed there was as much used "this way in Ireland as there is in pipes in England." "One shall commonly see," he says, "the servant-maid upon the washing-block, and the swain upon the ploughshare, when over-tired with their labor, take out their boxes of smutchin and draw it into their nostrils with a quill, and it will beget new spirits in them, with fresh vigor to fall to their work again." There is doubtless some connection between the word "smutchin" as applied to snuff, and the Irish word *smachteen* as applied (at a later date) to tobacco in its unpulverized state. The epithet *smachteen cron* (Brown Little Mallet) was applied to a stout description of tobacco, smuggled into Ireland about the middle of the last century, and in which an extensive traffic was carried on in Munster. The setting of a lively air called "The Smachteen Cron," is given in O'DALY's *Munster Poets and Poetry*; and also some Irish words to it, as probably the earliest specimen of the many songs current among the peasantry to the same air and purport. The following is a translation:

"Arise, get up my girl!
Boil potatoes and meat!
Here comes up the garden
The lad with the *Smachteen Cron*.
Oro, ro, my Smachteen!
Love of my soul, my Smachteen!
Oro, ro, my my Smachteen!
O my Smachteen Cron!"*

Notwithstanding, that the use of tobacco was fashionable with the wits and gallants, it was made the subject of satire by even those who were not averse to a quiet pipe and a pottle of sack. That there were two parties to the tobacco question, even when RALEIGH and the court circle gave to smoking that character which, in historical chronicles, takes the place of popularity, is very evident from one especial fact. That is, that SHAKSPEARE does not mention tobacco, or smoking, in any way tending either to advocate or abuse the weed. SHAKSPEARE was a famous man of business, a discreet, well-poised brain, which would devote itself to all things—give grace to the lowest, or honor to the highest walk. In our day he could successfully pursue any calling—from the monotonous routine of a city railroad conductor, to the far reaching emergencies of a cabinet minister. Discre-

* O'DALY's *Poets and Poetry of Munster*; with poetical translations by the late JAMES CLARENCE MANGAN; and the original music, &c., Dublin: 1850. p. 229.

tion he regarded as a solid basis for success. In business matters he clearly deemed a decent respect for the opinion of mankind, not the least important attraction to amuse those by whom he was to live. This feeling would make him not less a courtier to the sovereign people than to the people's sovereign. Though friendly with RALEIGH, he had sufficient discretion to deny himself the exaltation of his friends' tobacco weakness, lest he might offend a rival party; and per contra, declined to abuse tobacco lest he might exalt the opponents of the new custom, at the expense of his friend. So with his usual business tact, he concluded to say nothing about it. "Pipes" and "smoke" are mentioned by SHAKSPEARE, but the former are not those through which the latter is drawn; nor the latter that which circled from human mouths or snorted from human nostrils, though both may have suggested the metaphor of *Romeo*.

"Love is a smoke, made with the fume of sighs;
Being puff'd, a fire sparkling in lover's eyes."

The greatest of SHAKSPEARE's poetical and dramatic contemporaries, SPENSER and BEN JONSON, were less discreet, and entered in various degrees into the feelings of the era on the matter. The former, whose turmoils with, show him to have been equally excitable as, the Irish, was a devoted friend of RALEIGH, by whom he was visited at his Irish home of Killeolman, and through whom he received the laureateship from ELIZABETH. No wonder he could see a virtue in the American plant, and call it "divine Tobacco." JONSON, notorious for his brawls, his passions, and emphatic nature, was not likely to be neutral. He has given us the temper of the times. After his fashion, Captain *Bobadil* thus enlarges on the great qualities of Tobacco:

"Sir, believe me upon my relation,—for what I tell you the world shall not reprove. I have been in the Indies where this herb grows, where neither myself, nor a dozen gentlemen more of my knowledge, have received the taste of any other nutriment in the world, for the space of one-and-twenty weeks, but the fume of this simple herb only. Therefore, it cannot be but 'tis most divine. Further, take it in the true kind, so, it makes an antidote, that had you taken the most deadly poisonous plant in all Italy, it should expel it and clarify you with as much ease as I speak. And for your green wound,—your balsamum, and your St. John's-wort, are all mere gulleries and trash to it, especially your Trinidad. Your Nicotian is good, too. I could say what I know of it for the expulsion of rheums, raw humors, crudities, obstructions, with a thousand of this kind, but I profess myself no quack-salver; only thus much, by Hercules, I do hold it, and will affirm it before any prince in Europe, to be the most sovereign and precious weed that ever the earth tendered to the use of man."

"This speech," quoth Young *Kno' well*, aside, "would have done decently in a tobacco-trader's mouth."

In the same play—"Every Man in His Humor"—first performed 1598, the other side of the question comes from the mouth of *Cob*, the water-bearer, at whose house the boastful *Bobadil* resides, and who is thus described by his host, in contrast to Master Mathews, who, though his father is "a worshipful fishmonger, and so forth," does "creep and wriggle into acquaintance with all the gallants." "Oh! my guest," quoth *Cob*, "is a fine man! He does swear the legiblest of any man christened: by Saint George—the foot of Pharaoh—the body of me—as I am a gentleman and a soldier—such dainty oaths! And, withal, he does take this same

filthy roguish Tobacco, the finest and cleanliest! it would do a man good to see the fume come forth out at's tonnels." Trying to amaze the jealousy of the suspicious *Kitely*, *Cob* tells the latter he saw no one to be kissed, unless they would have kissed the post in the middle of the warehouse; "for there I left them all at their tobacco, with a plague."

But the following more clearly shows the feeling that existed against Tobacco among the class of which *Cob* was a stage representative:

"By gad's me, I mar'l what pleasure or felicity they have in taking this roguish tobacco! It's good for nothing but to choke a man and fill him full of smoke and embers. There were four died out of one house last week with taking of it, and two more the bell went for yesternight; one of them, they say, will ne'er 'scape it: he voided a bashel of soot yesterday, upward and downward. By the stocks! an there were no wiser men than I, I'd have it present whipping, man or woman, that should but deal with a tobacco pipe: why, it will stifle them all in the end, as many as use it; it's little better than ratsbane or rosaker."

It will be noted that JONSON puts the praise of Tobacco into the mouths of the gallants, or would-be gallants, and its dispraise to the credit of the poorer classes, showing distinctly that if there was a fashionable party for, there was a popular party against it. It is likely that the latter, as in such cases, was mainly antagonistic to that which they could not obtain—Tobacco being an expensive indulgence. If SHAKSPEARE did not wish to displease either party, it is even more evident that JONSON desired to please both. We are told that the speech of *Bobadil* epitomizes the sanative qualities of Tobacco, as given by CASPAR DURANTE, GOHORRI, EVERARD, and other medical writers. The passage alluding to the life-sustaining powers of Tobacco, without the use of food, is almost a literal translation from EVERARD, whose "Treatise on Tobacco" was published in Holland a few years previous to the production of "Every Man in His Humor." It is asserted by others, as well, that by smoking, soldiers and sailors are enabled to endure hunger and thirst for a considerable time. Some remarkable instances of this quality in Tobacco are on record. PERE LAFITAU, in his account of the "Manners and Customs of the North American Indians," states that the Iroquois sometimes live for thirty continuous days without any other sustenance than the fume of Tobacco. The "Transactions of the Republic of Letters, 1685," gives a still more remarkable case, and one which appeals strongly to our marvellous, if not to our doubting faculties. The case is that of a lunatic in the hospital at Haarlem afflicted with religious madness. Fancying himself to be Messiah, he determined to prove his mission by fasting forty days and nights. From the 6th of December, 1684, to 15th of January, 1685, he tasted no kind of food, but smoked tobacco freely, occasionally washing his mouth out with a little water. In satirical allusion, no doubt, to this supposed property in Tobacco, the author of the "Marrow of Compliment" wrote these lines:

Much meat doth gluttony procure
To feed men fat as swine;
But he's a frugal man indeed,
That on a leaf can dine!

He needs no napkin for his hands,
His fingers ends to wipe,
That hath his kitchen in a box,
His roast meat in a pipe!

So much in illustration of *Bobadi's* theory.

In his "Alchymist," produced when King JAMES had been some years on the throne, BEN JONSON suggests the arts and whole business of the tobaccoists of the period, where *Face* introduces *Abel Druggier* to *Subile* thus :

"This is my friend Abel, an honest fellow ;
He lets me have good tobacco, and he does not
Sophisticate it with sack-lees or oil,
Nor washes it in muscadell and grains,
Nor buries it in gravel, underground,
Wrapped up in greasy leather, or — clouts,
But keeps it in fine lily-pots that, opened,
Smell like conserve of roses, or French beans.
He has his maple-block, his silver tongs,
Winchester pipes, and fire of juniper :
A neat, spruce, honest fellow, and no goldsmith."

The "no goldsmith" allusion, like the postscript to a lady's letter, contains much practical pith. It is meant as a strong compliment, by being put in direct antithesis to "honest fellow;" and recommends him as one "not accustomed to insure himself against the risk of bad debts by charging an exorbitant price for his tobacco to such of his customers who dealt with him *on tick*."

King JAMES was very unpopular, and his opposition to Tobacco drove the commonality, as well as the court party, to cherish it. The "roguish tobacco, which was wont to be taken of gentlemen and gallants, was now made the companion of every tapster and horsekeeper." The poets, playwrights, actors and musicians, albeit not coming under the head of "tapsters or horsekeepers," became especially addicted to it; and a writer of the age, supposed to be the father of JOHN MILTON, describes many of the play-books and pamphlets as being conceived over-night by idle brains impregnated with tobacco smoke and mulled sack, and brought forth by the help and midwifery of a caudle next morning. Of course, in this state of affairs there was a new court party who echoed the sentiments of the king.

Dr. PETER HEYLIN, who, in the succeeding reign, with his "Mercurius Aulicus," proved himself a willing news manufacturer and monger in the STUART interest, published his "Microkosmos, a Little Description of the Great World," in 1624. Under the head of Peruana he takes occasion to vent a blast at Tobacco. "Here," he says, "is also great store of Tobacco, which, though in some respect being moderately taken, may be serviceable for physike; yet (besides the consumption of the purse, and impairing of our inward parts) the immoderate, vaine, and phantasticall abuse of this hellish weed, corrupteth the naturall sweetnes of the breath, stupefieth the braine, and indeed is so prejudiciall to the generall esteeme of our countrymen, that one saith of them, *Anglorum corpora qui huic plantæ tantopere*

* It may not be uninteresting to the lovers of the weed to know that it has given the title to at least two dramatic pieces. A drama, entitled "The Tobaccoist," an alteration, by FRANCIS GENTLEMAN, from this piece of rare BEN JONSON's, was produced at London and Edinburgh in 1771, and probably afterwards, as it is to be found in the second volume of "The London Stage." A musical interlude, entitled "The Tobacco Box," was performed at the Haymarket, 1782. From the *Biographia Dramatica* we learn, however, that "it was neither more nor less than a song, of which the verses were sung alternately by a soldier and his wife on the eve of a battle."

indulgent, in Barbarorum naturam degenerasse videntur." After confuting the two virtues ascribed to it, the wise HEYLIN continues—"But Tobacco is by few taken now as medicinall: it is growne a good fellow, and fallen from a physician to a complement:" a folly which he thinks would not have "spred so farre," if pipes had been thrust through the noses of the English, as was done with the Turks found taking tobacco. In doubt as to its use, he jumps at the following, in conclusion: "It may be an antidote for the immoderate use of drinking, which our *Belgian* souldiers brought with them, three years before, from the *Low Countries*, before which time, of all northerne people, the English were deemed most free from that swinish vice, wherein it is to be feared, they have now out-gon their teachers, the *Dutch*. The idea of the "hellish weed" being an antidote to drinking is certainly opposed to the modern condemnation of it as a strong provocative of thirst and a longing for strong liquors. Another writer, some years previous, argues the use of Tobacco because, among other reasons, the English were great drinkers. A tract was published in 1602, entitled "Work for Chimney Sweepers, or a Warning for Tobacconists," with this motto: "Fumus patriæ igne alieno luculentior—as much as to say, Better be chokt with with English Hemp than poisoned with Indian Tobacco." This called forth a reply in the same year, called "A Defense of Tobacco; with a friendly Answer to the late printed book, called Work for Chimney Sweepers," in which Tobacco is recommended as wholesome to Englishmen, "on account of their being *great eaters and drinkers*, and thus requiring a *pipe* as a drain for their superfluous moisture." HEYLIN probably took a cue from this, but was not willing to accord an immoderate thirst to his country men until they had been initiated into its cravings by contamination with the Dutch.

JOSHUA SYLVESTER was one of the poets who, from being a partial patron of the pipe, sought the favor of the monarch by a poem entitled "Tobacco battered, and Pipes shattered (about their ears that idly idolize so base and barbarous a weed, or, at leastwise, over-love so loathsome a vanitie;) by a Volley of Holy Shot thundered from Mount Helicon." Guns and tobacco pipes he ascribes to the inventive genius of the devil, and believes they were two plagues foretold in the Revelations.

"Two smoky engines, in this latter age,
(Satan's short circuit, the more sharp his rage,)
Have been invented by too wanton wit,
Or rather vented from the infernal pit,—
Guns and tobacco-pipes, with fire and smoke,
At least a third part of mankind to choke,
(Which happely the Apocalypse foretold;)
Yet of the two we may, I think, be bold
In some respects to think the last the worst,
(However both in their effects accursed;)
For guns shoot from-ward only at their foe,
Tobacco-pipes home-ward into their own,
When, for the touch-hole firing the wrong end,
Into ourselves the poison's force we send."

Having demolished the pipes, he thus pours his holy shot into tobacco:

"Of all the plants that Tellus' bosom yields,
In groves, glades, gardens, marshes, mountains, fields,
None so pernicious to man's life is known,

As is tobacco, saving *hemp* alone.
 If there be any herb in any place
 Most opposite to God's good Herb of Grace,
 'Tis doubtless this ; and this doth plainly prove it,
 That, for the most part graceless men do love it,
 Or rather doat most on this withered weed,
 Themselves as withered in all gracious deed."

Further on, he removes the doubt here expressed, and shows that *some* but graceless men love it :

" If then tobacconing be good, how is't
 That lewdest, loosest, basest, foolishhest,
 The most unthrifty, most intemperate,
 Most vicious, most debauched, most desperate,
 Pursue it most ; the wisest and the best
 Abhor it, shun it, flee it as the pest ?"

It is needless to say that the lives of some of the most eminent men flatly contradict the assertions in the concluding lines. The truth is, SYLVESTER was very needy, and sought to make his account in his " holy shot," as well as by a sonnet to Prince CHARLES in which he very bluntly asks for aid. It does not appear, however, that he made much by either, or captured the king by his diplomatic wisdom in taking up his views. A stanza of his own striking poem, " The Soul's Errand" long attributed to Raleigh, might be suggestively addressed to himself at this juncture :

" Tell wit how much it wrangles
 In tickle points of niceness ;
 Tell wisdom she entangles
 Herself in over-wiseness,
 And when they do reply,
 Straight give them both the lie."

Sir WILLIAM VAUGHAN, a writer also of the reign of JAMES I, though embracing the early Turkish idea, that Tobacco produced impotency, yet was of opinion that a pipe taken fasting in a raw and rainy morning, in those months which want the letter R, was a " singular and sodaine remedy against the megrim, the toothache, the fits of the mother, the falling sickness, the dropsie, the gout, and against all such diseases as are caused by windy, cold, or watrish humours."

Tobacco is historically connected with one of the last theological executions which took place in England. What is called in Herefordshire *The Kemble pipe*, signifying the last smoke at a sitting, had its origin in it. The tale is not without interest. The Rev. JOHN KEMBLE, great-grand uncle of ROGER KEMBLE, father of Mrs. SIDDONS and the KEMBLE players, was one of the last martyrs for the sake of his religion. At the time of his death he was in his eightieth year, and of which period he had officiated as a Catholic priest for fifty-four years. CAMPBELL in his life of SIDDONS gives a graphic account of his end. The poor old man was apprehended at Pembridge Castle, in the parish of Witch Castle, in Herefordshire. He was apprised of his pursuers but refused to abscond, saying that in the course of nature he must die ere long, and that it would be better for him to die for his religion. He was committed to Hereford jail, but was cruelly and unnecessarily ordered up to London on pretence of implication in TITUS OATES plot, and from thence sent back again to take his trial at Hereford.

He was put on horseback for the journey, but his infirmities permitting him only to ride sideways, he was compelled to perform the greater part of it on foot. * * * He suffered on the field of Wigmarsh, close by Hereford. His last words from the cart were as follows: "It will be expected I should say something; but, as I am an old man, it cannot be much. I have no concern in the plot, neither indeed do I believe that there is any. OATES and BEDLOE, not being able to charge me with anything when I was brought up to London, makes it evident that I die only for professing the old Roman Catholic religion, which was the religion that first made this kingdom Christian; and whoever intends to be saved must die in that religion. I beg of all whom I have offended, either by thought, word, or deed, to forgive me, as I do heartily forgive all that have been instrumental or desirous of my death." He then turned to the executioner and said, "Honest Anthony, do thine office; thou wilt do me a greater kindness than discourtesy." He was executed on the 2d August, 1679. * * The old man's fortitude is still a traditional by-word in the place. On his way to execution he smoked his pipe and conversed with his friends; and in that country it was long usual to call the last pipe that was smoked in a social company, a Kemble's pipe.*

In this connection the remarks of a French Protestant refugee, M. Misson, in the memoirs of his travels over England—(1697), are appropriate in one respect, even if they afford a theological contrast in another. He thinks the perpetual use of Tobacco makes the generality of Englishmen thoughtful, taciturn, and melancholy; and he seems to be convinced that smoking "makes men profound theologists—for no man in the world will smoke a pipe better than an English clergyman; and all the world knows that the English theology is the most profound theology of all." Concluding his remarks, he says "Tobacco not only breeds profound theologists, but also moral philosophers." In proof of which he quotes a sonnet embracing these lines:

"Tobacco, charmer of my mind,
When, like the meteor's transient gleam,
Thy substance gone to air I find,
I think, alas, my life's the same!
What else but lighted dust am I?
Thou show'st me what my fate will be;
And when thy sinking ashes die,
I learn that I must end like thee."

The writer of these lines is not the only poet who has seen a type of human life in a pipe of tobacco. The author of "A Paper of Tobacco" directs our attention to the following:

"The Indian weed withered quite,
Green at noon, cut down at night,
Shows thy decay, all flesh is hay:
Thus think, then drink tobacco.

"The pipe that is so lily-white,
Shows thee to be a mortal wight,
And even such, gone with a touch,
Thus think, then drink tobacco.

" And when the smoke ascends on high,
Think thou behold'st the vanity
Of worldly stuff, gone with a puff;
Thus think, then drink tobacco.

" And when the pipe grows foul within,
Think on thy soul, defiled with sin;
And then the fire it doth require :
Thus think, then drink tobacco.

" The ashes that are left behind
May serve to put thee still in mind,
That unto dust return thou must :
Thus think, then drink tobacco."

The same clever cicerone who points these lines out to us also corrects a most erroneous statement made by Dr. ADAM CLARKE, to wit: that the *Church* and *State* have conjoined to *sanctify* and *legalize* the use of Tobacco from the time of the Grand Prior and CATHERINE DE MEDICI down to his own time. A more egregious error could not be made, as we have shown. No Christian Church ever sanctified its use, unless indeed the term be allowed to every congregation of *independents* who, in the Cromwellian era assumed the name. "In this sense the use of tobacco might be said to have been *sanctified* by several churches; for many active beaters of the 'drum ecclesiastic,' were also powerful as pipe performers, in which latter exercise their strength of lungs enabled them to inhale deeply; and lay elders in buff—who, having gained their coats in the service of the state, wore them out in the service of *their* church—were generally addicted to smoking. Some of the latter also *sanctified* the use of tobacco by smoking in the choir of more than one of our cathedrals, after stabling their horses in the nave." In a dramatic production of very considerable excellence recently issued we have a capital scene, in which a pipe of tobacco helps to illustrate the character of the men and times. It is a night scene in the camp of CROMWELL; troopers by a bivouac fire, eating, drinking, or smoking, while the sentinel on watch takes, by the fire light, an occasional glance at his Bible. CROMWELL mixing with the soldiers, often partaking of their food and drink, calls—

To 1st trooper "Hand me a pipe of Trinidad!

(Takes a few quick puffs, rises, passes behind 3d trooper and strikes the pipe on the rim of the corselet, the blazing ashes falling down his back.)

3d trooper. (Leaping up.) Now may the devil—

Cromwell. Ho! swearest thou?

To 1st trooper. Write Hezekiah Sin-despise, five shillings
For swearing. Thou shalt never more be known
As Sin-despise, but Over-come-by-sin!
Our discipline must be preserved: I hate
The vice of swearing, utterly, yea! utterly!
But some share of the fault was mine herein,
And verily I will pay the fine myself.

To 3d trooper. Tush! tush! twist not thyself, man, to and fro,
Nor grin as though it hurt thee!—
Methought my ironside were proof 'gainst fire,
As well as steel!"*

* Oliver Cromwell: a Tragedy in Five Acts, by T. SEATON DONOHU; author of "Ivywall," etc. Washington, D.C. 1860.

In the sparkling comedies of Farquhar, Tobacco is made to illustrate the manners, customs, and characters of the day, by several brief but suggestive allusions. In the "Beaux Stratagem," Old *Will Boniface* describes the general run of country gentlemen in those times in his character of *Squire Sullen*, who "says little, thinks less, and does—nothing at all, faith; but he's a man of great estate, and values nobody. * * Yes, sir, he's a man of pleasure; he plays at whisk, and smokes his Pipe eight-and-forty hours together, sometimes." The manner in which officers of the guard got through the still hours of their watch in the days, or nights, of the Restoration is graphically indicated by *Duretete* in "The Inconstant:" "I'll fairly stroll down to the guard, and nod away the night with my honest lieutenant over a flask of wine, a rakehell story, and a pipe of Tobacco." To him, however, this was a last resource of *ennui*, as well as a refuge not without its terrors, if we are to be guided by his dialogue with the whimsical *Bisarre*, whom he desires to detach from him by propositions he deems no lady will accede to. She however, most perplexingly agrees will all. At last he cries:

"Sdeath woman will you go to the guard with me and smoke a pipe?"

Bisarre.—"Allons, done!"

Duretete.—"The devil's in the women;—suppose I hang myself?"

Bisarre.—"Then I'll leave you."

The contempt of the aristocracy for the city merchants who, by having money or other circumstance set up for beaux, is found in the ironical exclamations of *Wildair*, in "The Constant Couple," when he hears that *Clincher* has "whip'd from behind the counter" and affected the fashionable.

Wildair.—"Ha, ha! ha! how many pound of Pulvil must the fellow use to sweeten himself from the smell of hops and Tobacco?"

And in *Lucinda's* description of *Mockmode*, in "Love and a Bottle," we are instructed how the young sparks spent their days at college, and the esteem in which fat ale and Tobacco was held by the ladies.

Lucinda.—"He's newly come to Town from the University, where his Education could reach no farther than to guzzle fat ale, smoke Tobacco, and chop Logick—Faugh! it makes me sick."

Miss *LUCINDA's* distaste for ale and the weed has unfortunately not been shared by all her sisters. It has become almost national in some countries for women to indulge in the cigarette, while it is a matter of histrionic history that among other female notabilities of the stage the angelic *MALIBRAN* was devoted to a pot of half-and-half, and that Mrs. *SIDDONS'* predilections for a "pint of beer" on one occasion produced a very novel and ludicrous stage effect; the boy who was hurriedly despatched for the beer, bringing the foaming pewter on the stage, and presenting it to the *SIDDONS* while in the sleeping scene of *Lady MACBETH*. Apropos of the stage in connection with Tobacco: one of the most ardent writers against the use of the latter, especially in the shape of snuff, was Dr., afterwards Sir *JOHN HILL*; a strange and belligerent compound of talent, industry, and charlatanry; who wrote voluminously—fiction and philosophy—newspapers and natural history, lampooned the Royal Society, dealt in patent medicine, produced some light dramatic pieces, and inspired this epigram from *GARRICK*:

"For physic and farces his equal there scarce is;
His farces are physic, his physic a farce is."

In the "Hymnus Tabaci" * of RAPHAEL THORUS, while the praise of good, mild tobacco, and its moderate use is sung, we find a picturesque denunciation of the adulterated sort, especially addressed to men of letters. Who use it :

— Shall be ever yawning ; and above
All things, they shall the chimney corner love ;
And, except hunger raise them, take delight
To snort by th' fire till it be late i' th' night.
But, O ! ye sacred offspring of the Nine,
Whose birth, whose life, whose works are all divine,
You who do dig from Wisdom's paper-pits
Learning's bright ore, and fine it with your wits,
Above all other men, see ye do fly
That hucksters mischief and damned villainy ;
And, found out by its symptoms, without fail,
Send it to the flames in *gross*, not by *retail*.

Literary men have not always followed this advice, though from the many excellent things written on smoking the great majority are in favor of a discriminate affection in the choice of the brand. BYRON's sonorous lines in "The Island" hints at the various modes of use, and emphatically gives his own preference for a cigar, while the descriptive lines of JOHN BROUGHAM as emphatically declare for the pipe :

— " A pipe of the nicotian leaf,
The true Nepenthe balm for every grief,
While other joys one sense alone can measure,
This to all senses gives extatic pleasure.
You *feel* the radiance of the glowing bowl,
Hear the soft murmurs of the kindling coal,
Smell the sweet fragrance of the honey-dew,
Taste its strong pungency the palate through,
See the blue cloudlets circling to the dome
Imprisoned skies up-floating to their home." †

This very fully embraces the piper's fascination, and may be taken as a representative opinion. To go through the list of poets, philosophers, painters, churchmen, dramatists, statesmen, historians, novelists, wits, magazine-ists, and eminent men generally, who have given their countenance to Tobacco would far exceed the limits of our duty. Suffice it to say that some of the most renowned smokers, like Dr. PARR, HOBBS of Malmesbury, ISAAC NEWTON, ISAAC WALTON, JOHN LOCKE, and others, lived over the allotted three-score and ten, while some of them went into the nineties. By way of a finishing stroke to this mosaic, we may quote the " Cogitations on a Pipe of Tobacco," by THOMAS DERMODY, thankful that one so willfully unfortunate found solace at so trifling a cost as he indicates :

" That a simple weed should be of such unparalleled service to the whole junto of philosophers, politicians, parsons, and poets ; that a small tube with a competent bore should invigorate their spirits, and kindle up their brain ; is most marvellous. That the peasant may imbibe cheerfulness, the hypo-

* A Poem in honor of Tobacco ; made English by PETER HAUSTED, M.A. Cambridge, 1651.

† BROUGHAM'S Dramatic Works, vol. 1. " Pocahontas." New York.

chondriac disappoint the bile and the vapors, and the statesman save a whole state, for a halfpenny, is verily incomprehensible and mysterious. The poet may get inspiration for his Muse, brown paper to scribble on, and humor to please his countrymen, at so small expense. Oh, the blessings of a kind legislature; which thus obliges the world, and exalts the sad hearts of thousands! For my part, I would travel from Counamara to Jerusalem, and thence to the Antipodes, to find a social smoker, a lively coal-fire, and a clear-drawing pipe.

"Lost in the clouds of thy influence, sable nymph of India! and in the depth of thy Castilian tankard, I would defy the world, the pope, and the devil. Besides, thy intoxications are harmless, thy votaries all sentimental, and all (in spite of thy fogs) pervious to the imploring eye of pity, the warm tear of gratitude, and the eloquent sigh of misfortune. '*Fortunatos nimium!*' Golden feast! second course to the acorns of simplicity, and the unbought dainties of Eden. Light lie the sod on the wight who first explored thee, and long may thy own balm allay the labor of the swarthy slave who planteth thy luxuriant seeds!"

THE ANTI-PETROLEUM MANIA.

We published in our last number the ordinance passed by the Brooklyn Common Council to prohibit the storage of crude petroleum, "and to regulate the vending of the same when refined," within the limits of the city. At the same time we took occasion to express our decided disapprobation at so hasty an act, believing more proof should be required than the Williamsburgh fire before petroleum in every shape is condemned. One swallow never made a summer, nor should one fire or accident be held to establish a principle. We are glad to state that the ordinance above referred to has been repealed, and that the questions involved will now receive the consideration they deserve before being finally disposed of.

It seems too that England is in danger of acting indiscreetly on this question. A bill has there been introduced respecting the "safe keeping of petroleum," which is so stringent, that it will, if passed, operate almost as a prohibition against the importation and use of the article and its numerous products. The trade, however, will be pleased to know, as the London *Times* of July 3d tells us, that "an influential statement has been prepared and circulated against the bill," and probably will lead to an investigation which will prevent hasty or improper action.

We think it only requires a little examination to reach a satisfactory solution of this vexed question. There is a gas which will be seen to arise from the wooden casks in which crude petroleum is frequently shipped. This gas or vapor is explosive. Thus, the Williamsburgh accident is accounted for. The refined oil, however, or any other of the numerous products of petroleum, are not explosive. If, therefore, the crude oil were required to be put up in such a manner or in such vessels as would prevent the escape of this gas, it could be handled without danger. We cannot see that any other regulation is at present needed. Many seem to forget that petroleum is becoming, in a commercial view, one of the most important of our country's products. We should, therefore, be careful not to allow our fears to get the better of our judgment, and lead us to fetter this trade with unnecessary regulations.

CHINA:

ITS INTERNATIONAL RELATIONS—ITS RESOURCES—ITS REBELLION AND ITS FUTURE.

THE Empire of China, after preserving its state of isolation for so many centuries, seems to be no longer able to hold itself aloof from the great community of nations, and for several years it has been gradually coming within the vortex of trade, which so speedily swallows up national distinctions and ameliorates the antipathies of races. The thick crust of Chinese exclusiveness was broken through some twenty years since, by the determination of the English to force upon them the trade in opium, which her Tartar rulers had so long and with so much high principle resisted. The power of arms indeed compelled them to admit the opium, but it went but a little ways towards establishing more friendly intercourse. The nation still remained dead to human sympathies, with, if possible, only an increased dread of the "red-haired devils," or "outside barbarians," that so pertinaciously sought to penetrate into their nation. Of late years the Chinese Empire has been, as it were, galvanized into human intercourse by two potent agents, which may be regarded as the negative and positive poles of the battery. The one was the Christian religion, implanted by GUTSLAFF more than twenty years since, and the other, the gold of California, the news of which, some twelve years ago, awakened the cupidity of that singular people, and drew them in large numbers to the shore of America, where they have since mingled with the representatives of all nations, and earned a knowledge of humanity, as well as much golden treasure. It is remarkable that the gold discoveries of the outside barbarians were admitted to be valuable in the eyes of the Chinese. Gunpowder, steam, and every invention which has forwarded modern civilization, has been successively treated with great contempt by the Chinese, as obsolete inventions of their own. Gold was too much for their philosophy, however, and they bowed before its power with a humility great as their former pride, and they humbly came in crowds to enjoy the permission to dig.

The operations of the English in 1842, in relation to the opium trade, have long been familiar to the public mind. The opium trade dates from about 1813, at which time a value of nearly \$2,500,000 was exported from British India to China. In 1840 it consisted of 37,000 chests, valued at \$28,000,000, and in 1859 the value was \$50,000,000. The peculiar position of the Chinese people, who for so many centuries have been manufacturers, and whose country produces almost every variety of raw produce, made them independent of most of the foreign articles offered for sale. Opium, however, became rapidly an irresistible want, and as the import grew in magnitude the demand for silver to pay for it increased in the same proportion, causing the Chinese functionary to exclaim, "The black dirt is always coming in and the pure silver always going out." The power of India to absorb silver, which was then so conspicuous, has become more manifest in the manner in which she has drained Europe of that metal, step by step, with the influx of gold from California and Australia to supply its place. The effect of the gold discoveries was to impart great animation to business and manufactures, a result of which was a great rise in the prices of raw materials, India goods in particular.

With that rise the imports from India increased in magnitude, to be paid for in silver, which flowed thither in an annually increasing stream.

The result of the opium war was the consent of the Chinese government to admit and legalize the traffic, and also for the first time, in the history of commerce, the formation of commercial treaties with China. The English concluded a treaty with that Empire in 1842. Instead of their trade being confined to Canton, as theretofore, and conducted through twelve hong merchants, five large ports were thrown open—Canton, Amoy, Fu-chow-fu, Ningpo, and Shanghai. With those ports trade became measurably free. From that time to 1858 the commercial relations of the United States with China were regulated by a treaty made July 3, 1844, similar to that made with Great Britain. There had indeed been commercial relations existing between the United States and China as far back as 1784, and the China traders were the merchant princes of the Union. They earned and maintained a high character with the Chinese; but that primitive people were somewhat puzzled with the two enterprising nations—the one English and the other American—both speaking the same language, and both of a bold and enterprising character. Inasmuch, however, as they observed a greater national force and a more considerable command of capital in the hands of the English, they decided the matter by denominating the Americans “second-chop English.” Under the new treaty the trade between the two countries increased with great rapidity up to 1857, except with the interruption that grew out of the events of 1856, when martial law prevailed in Canton. In 1858 a new treaty was signed by WILLIAM B. REED, on behalf of the United States, by which other ports were opened to trade, particularly in Formosa. Under these circumstances the American trade increased rapidly; but it is a singular instance of the perversity of Chinese management that, while the three treaties with France, England, and the United States prescribed the payment of tonnage duties, and each was placed on the footing of the most favored nations by *treaty*, all those vessels belonging to nations with which there were no treaties were free to come and go without any charge whatever. These were Dutch, Spanish, Portuguese, etc. This was temporarily remedied by an agreement of the consuls and merchants, that all should pay alike.

Meanwhile a vast change has been going on in the internal affairs of the Empire, through the progress of the rebellion.

The operations of the early Catholic mission in China seem not to have been very successful as far as outward manifestations indicate. Subsequently to 1833, however, Protestant missionary labors appear to have received a stimulant, and Europe, as well as England and the United States, contributed to assist in the promulgation of Christianity. The most active of the agents was GUTSLAFF, a German scholar and zealous Christian. He originated a Christian union of Chinese converts, with the view to the institution of native preachers, who could penetrate into the provinces of the Empire and report occasionally to headquarters. In 1844 the union numbered 44; in 1845 there were 88; and 1,790 in 1848, and is now more than 3,000. In 1849 there were 119 preachers in 22 provinces of the Empire; of the 119, 44 were in the province of Kwang Tung, where originated the great rebellion. The leader of it, HUNG-TSIEN-CHUEN, had been a pupil of the missionaries at Hong-Kong. It does not seem at first that the Christian movement in Kwang Tung had

any political object; but the Tartar authorities endeavored to suppress it by beheading the converts as promulgators of "depraved doctrines," and self-preservation led them to combine and resist. In 1848-9 HUNG-TSEIN-CHUEN set up his standard, and pretending to have been taken up into heaven, and to have been charged with a divine mission to extirpate idolatry and the Tartars, and to promulgate Christianity—he took the generic title of Taeping, or Great Peace. The masses of the native Chinese population knew and cared little about Christianity, nor were they disposed to fight for idolatry; but the expulsion of their foreign conquerors, the Tartars, was a popular object, and they thronged to the standard of HUNG-TSEIN-CHUEN in such multitudes that he was soon in possession of the province of Kwang Tung, except the capital, Canton, which he also would have taken but for the interference of British ships-of-war, and he subsequently made steady progress towards Nankin, the ancient capital of the Empire, which, in 1853, he took possession of, and has held ever since, notwithstanding a siege of some duration by an imperial army, but which was totally routed in May, 1860. Since then the military strength of the rebels has been gradually increasing. Mr. ROBERTS, an American missionary who has been thirty years in China, and who is now residing at Nankin under the protection of the rebel government, states that they have several armies in the field, one of them even threatening Peking; and there is a very strong impression that, but for the British having interdicted the approach of the rebels to the treaty ports, they would speedily fall into their hands, thus depriving the Tartar government of the pecuniary aid which it now derives from the very large customs collections made at the treaty ports, under the superintendence of European agents, who had been in the British service; thus exhibiting a practical illustration of British professed neutrality between the belligerent parties.

The great valley of the Yang-tse-Kiang is the commercial field of which Shanghai is the entrepot. The city is on the Woosung river, about fourteen miles from the sea. It stands on a level and highly cultivated plain, and is enclosed by a wall five miles in circuit, outside of which are populous suburbs. There are numerous manufacturing establishments in Shanghai, and the native trade at this port is, perhaps, more extensive than at any other in China. The population is supposed to reach about 200,000. The chief manufactures are flowered silk, of beautiful and delicate texture; glass, paper, ivory and bone, gold and silver, and iron wares. Shanghai is an important entrepot of the commerce between the northern and southern provinces of China, exporting manufactured goods to Tien-tsin, in the metropolitan province of Chili, and importing large quantities of pulse, flour, meats, rhubarb, and skins, from the shores of the Yellow sea. An extensive internal communication by water facilitates its trade with all the northern half of China, and it has a direct trade with the countries of Central Asia. Its coasting trade is also very extensive—as many as 3,000 junks being often crowded together in its river—from Hainan, Canton, and the Asiatic archipelago. The chief exports of Shanghai to foreign countries are silk, tea, camphor, drugs, cassia, and the best porcelain.

Canton, or Kwang-chan-fu, lies on the left bank of the Choo-Kiang, or Canton river, about 70 miles from its mouth, and is the great commercial emporium of the Empire. The city is enclosed by brick walls, on a sandstone foundation, six or seven miles in circuit, and entered by 12 gates.

The suburbs are nearly as large as the city itself. On the south, they stretch along the river-side, and at their southwest corner are the "hongs," or foreign quarters—a long range of buildings separated from the river by a quay. There are in all 13 hongs, including those belonging to the British, American, Dutch, and other merchants. The whole territory, however, allotted to foreigners, is comparatively limited. The population of Canton is about 1,000,000, a large part of which resides on water, so that for four or five miles opposite to, and above and below the city, the river is crowded with floating dwellings. The city was only a port of trade, because the Chinese had been in the habit of going there to trade with foreigners when there were no other ports open. But the difficulty created by the rebellion has diverted the great mass of the trade from its ancient and out-of-the-way channel, and concentrated it at Shanghai. And now that the Chinese find Shanghai to be nearer to their tea and silk districts than Canton, and that they can often get better prices, and always as good as at Canton, they abandon their old and long route to a port of sale, and will continue to concentrate at Shanghai. The progress of the Shanghai trade is seen as follows:

COMPARATIVE STATEMENT OF THE EXPORT OF TEA & SILK FROM SHANGHAI.

Year ending 30th June.	Total Black.	Total Green.	Total pounds.	Silk, bales.
1844-45.....	....	....	3,800,629	6,433
1845-46.....	....	....	12,459,988	15,192
1846-47.....	....	....	12,494,140	15,972
1847-48.....	....	....	15,711,142	21,176
1848-49.....	....	....	18,303,074	18,134
1849-50.....	....	....	22,363,370	15,237
1850-51.....	....	....	36,722,540	17,243
1851-52.....	....	....	57,679,000	20,631
1852-53.....	....	....	69,431,000	28,076
1853-54.....	....	....	50,343,847	58,319
1854-55.....	45,385,816	34,835,429	80,221,245	53,965
1855-56.....	29,115,273	30,184,693	59,299,966	57,463
1856-57.....	12,470,686	28,443,704	40,914,390	92,160
1857-58.....	23,978,114	25,988,527	51,317,003	66,391
1858-59.....	....	....	39,135,939	85,970
1859-60.....	25,663,666	27,800,105	53,463,771	67,874

The destination of the teas exported from Shanghai were as follows:

EXPORT OF TEA AND SILK FROM SHANGHAI, FROM JULY 1, 1859, TO JUNE 30, 1860.

Destination.	Black Tea. Pounds.	Green Tea. Pounds.	Tea. Total pounds.	Silk. Total bales.
Great Britain, direct...	23,098,813	8,522,391	31,621,204	19,084
United States.....	659,401	17,639,987	18,299,388	1,554
Australian Colonies...	534,006	380,805	914,811	....
N. American Colonies...	48,533	386,330	434,863	....
Continent of Europe...	1,105,398	66,964	1,172,362	47,099
Coastwise.....	217,275	803,628	1,020,903	
Manila.....	240	....	240	137
Total.....	25,663,666	27,800,105	53,463,771	67,874

In the return of the exports from Shanghai, the qualities of the tea exported, black or green, are only distinguished from the years 1854-55, and only in the last year are the different countries enumerated to which the exports are destined. In 1844-45 the export of tea was only 3,800,627 lbs., and bales of silk 6,433. The very next year the quantity of tea was quadrupled, and the bales of silk rose to 15,192; and an increased export in both tea and silk took place annually, and the year the rebels took possession of Nankin the export of tea rose to 69,431,000 lbs., and the bales of silk to 28,076. The next year, 1853-54, as might have been expected from the confusion consequent upon the subversion of the Tartar authorities at Nankin, the export of tea fell to 50,343,847 lbs., but singularly the bales of silk rose to 53,319; but much more singularly the export of tea in the following year rose to the greatest amount it has ever exhibited from Shanghai, namely, 80,221,245 lbs., and the silk amounted to 53,965 bales. From this year the export of tea fluctuated from 39,135,939 lbs. in 1858-59 to 53,463,771 lbs. in 1859-60. The silk, nevertheless, maintained very high figures; in 1856-57 it rose to 92,160 bales, the greatest amount exported in one year, and in 1860 the export had not fallen below 67,874 bales. If we contrast the first and the last of the sixteen years in the report, a marvellous progress had been made in the export trade. Tea had increased more than 1,300 per cent, and the silk more than 950 per cent. Looking to the destination of the exports in 1860, it is found that Great Britain took more than one-half of the tea, 31,621,204 lbs., but only 19,084 bales of silk; the United States took the next greatest amount of tea, 18,299,388 lbs.; so that the Anglo-Saxon race would seem to be the greatest tea drinkers, for the rest of the world would appear to have taken from Shanghai only about 3,500,000 lbs. America took only 1,554 bales of silk, but 47,099 bales went to the continent of Europe and coastwise.

A review of this remarkable progress in the export trade of Shanghai presents some anomalous and conflicting considerations. Since the year 1853, the rebels or Taepings, have been in possession of Nankin, the ancient capital of China, and of several great tea and silk producing provinces on the Yang tee Kiang, or Great River, and Shanghai had to be supplied either from these provinces, or from provinces beyond the rebel territories and still under the Tartar authorities, but whose products would mostly have to pass through the rebel territory to reach Shanghai. Now a portion of the Europeans in China have exhausted damnifying epithets in depicting the rebel character and proceedings—they were bloodthirsty brigands and incendiaries, carrying desolation with them—were flocks of locusts, who, wherever they alighted, left a fertile land a howling waste, and were incapable of establishing regular government, or engaging in commercial relations. These accusations were even sanctioned in print by high authorities in China. It does not appear, however, from the figures that trade has in consequence been interrupted. Annually increasing quantities of tea and silk could not be produced from howling wastes, and those products, if for the most part coming from provinces under Tartar rule, must have passed unmolested through Taeping territories, though as brigands they should have plundered them. The Taepings profess to have a divine mission to extirpate the Tartars, their foreign rulers, and to destroy idolatry; and in prosecuting these objects, in combat, in the field, and in storming cities and towns, great atrocities must

have been perpetrated; but in respect to the rural population, as contradistinguished from the Tartars, a fact is patent, that when unexpectedly repulsed in their attacks upon Shanghai in August, 1860, by French and English troops, although exasperated by a sense of betrayal, in their retreat they left uninjured the standing crops around Shanghai, and they did not molest Europeans.

The trade of Shanghai is with the United States next in importance to that with England, and has been growing in a two-fold ratio for many years. The United States merchants early settled at Shanghai, and have developed there a large business, not only in the import of teas and silks to the United States, but in the introduction of American cotton goods, mostly drills, which are popular in most of the other free ports.

Amoy is situated on an island of the same name, in a bay of the China Sea, opposite Formosa, and is an important point for foreign trade. The city is well fortified, and the harbor admits shipping up to the quays. The population numbers about 250,000. The trade has increased to some extent.

Fu-chow-fu, on the Min River, twenty-eight miles from its mouth, is surrounded by an amphitheatre of hills, and enclosed by castellated walls nine or ten miles in circuit, outside of which are extensive suburbs. This port is situated within seventy miles of the black tea district; and the trade there in black teas has rapidly increased since 1853; in the quarter ending September, 1860, its exports were 34,181,000 pounds. These teas cost an average of 30 cents, and sell in the United States at an average of 90 cents; and the city of Fu-chow-fu, besides its large factories for the manufacture of cotton, dyed blue cloths, &c., contains 500 ovens for the production of porcelain, which is here brought to a state of great perfection. The foreign trade of this port is extensive, as well as its commerce with all the maritime provinces and the Lew-Chew and Japanese islands. Its population is estimated at 500,000.

Ningpo is also a walled city, admirably situated for trade, at the junction of three streams, which, uniting their waters, flow hence in one stream to the ocean, eleven miles distant. Ningpo has large manufactures of silk, and a population of about 300,000 inhabitants. It is stated that about 670 junks visit this port annually from Shantung and Leas-tong, freighted with oil, provisions, fruits, caps, cordage, horns, drugs, rice, and silk; 560 from Fo-kien and Hai-nan, with sugar, alum, pepper, black tea, indigo, salt, rice, and dye-woods; from Canton and the straits, several vessels; and from the interior, about 4,000 small craft every year; the total imports being estimated at \$7,650,000 annually. It is several days nearer to the green tea districts than Shanghai, and has, consequently, affected to some extent the trade of that port.

The port of Tainan Formosa was opened to trade April, 1860, according to the new treaty with the United States. The island of Formosa has no good harbors, and only vessels of light draft can approach it, and Sainaw is not so good a place for trade, as either Keelang, near extensive coal mines, or Jakaw. Another new port is Suatow, in the department of Chas-tchou, the northeastern part of the province of Canton, between Hong Kong and Amoy, and situated at the mouth of the Han River, which is said to be navigable by a line-of-battle-ships fifty miles above Suatow. Sugar is one of the chief exports, and American cotton fabrics of imports. It has a good trade with the island of Formosa. The

port, is on the great commercial thoroughfare between the north and south of China, and by means of its accessibility, by far the greatest value of any of the ports. It is important as a port of refuge from Typhoons.

The development of American trade, which began with Shanghai, will no doubt continue to be more important at that port than elsewhere. The new treaties opening the four ports, had hardly begun to operate with regularity, when the gold of California offered its stimulus to international traffic. The facilities for digging attracted great numbers of all nations to those regions, and among these the Chinese number some 50,000, for the most part very quiet, industrious, and persevering workers, who were seeking a certain amount of gold with which to return to China. During many years they numbered over 14,000 per annum in emigrants to California.

Among the Chinese emigrants in California, there are several who have engaged extensively in commercial operations. There are in that State Chinese firms, in which more than \$500,000 are invested; and it is stated that more than \$2,000,000 capital is invested in the trade between San Francisco and China, owned and controlled by Chinamen residing in that city. At the same time they became acquainted with the increasing production of the northwest coast, and opened a trade for them in China. The lumber of Oregon particularly, came to be in demand in Chinese cities. By this process much of the repugnance of the Chinese to foreigners was overcome, and they carried back with them more enlarged views as to international intercourse, which they did not fail to impart to their neighbors. The market for teas opened to a greater extent on the Pacific coast, and in return many new articles were exported to China. Since gold made its appearance in traffic return the development of trade with China has been as follows:

	Value of exports.			U. S. tonnage.			Foreign ton.	
	Domestic produce.	Foreign produce.	Total.	Value of imports.	Entered the U. S.	Cleared from U. S.	Entered U. S.	Cleared from U. S.
1845...	2,079,341	196,645	2,275,986	7,285,914	21,204	17,477	478	.....
1846...	1,178,188	153,553	1,331,741	6,593,881	18,937	13,697	306	.....
1847...	1,708,655	124,229	1,832,884	5,583,343	16,601	12,334	1,174	.....
1848...	2,063,625	126,888	2,190,513	8,083,496	23,719	17,150	664	.....
1849...	1,480,945	122,279	1,603,224	5,513,785	19,418	11,740	.....	.....
1850...	1,485,961	119,256	1,605,217	6,593,462	21,969	17,880	7,445	3,106
1851...	2,155,945	329,342	2,485,287	7,065,144	27,587	46,317	11,327	10,198
1852...	2,480,066	183,111	2,663,177	10,593,950	52,076	67,264	26,009	21,507
1853...	3,212,574	524,418	3,736,992	10,573,710	65,899	66,041	26,965	24,808
1854...	1,293,925	104,163	1,398,088	10,506,329	51,196	68,658	19,230	18,547
1855...	1,533,057	186,372	1,719,429	11,048,726	55,048	101,660	15,767	15,768
1856...	2,048,244	509,993	2,558,237	10,454,436	69,194	83,438	9,981	10,962
1857...	2,019,900	2,375,230	4,395,130	8,356,932	57,042	59,549	6,987	9,480
1858...	3,007,748	2,689,603	5,697,351	10,570,536	49,958	57,972	15,814	10,696
1859...	4,233,016	2,894,183	7,127,199	10,791,881	63,275	95,083	7,810	6,668
1860...	7,170,784	1,735,334	8,906,118	13,666,587	77,264	78,374	4,213	5,751
1861...	5,809,724	1,107,703	6,917,427	11,351,719	70,291	46,614	5,555	1,511

The exports to China from the United States have grown large since 1855, and as an illustration of their nature, the following may be taken from the official figures, showing the domestic export for 1861:

Gold and silver.....	\$1,623,465	Other articles.....	1,487,782
Cotton goods.....	2,322,831		
Wheat and flour.....	275,646	Total.....	\$5,809,724

Gold, direct from California, and cotton goods form the chief articles of the trade. The description of cottons sent thither was nearly as follows:

	1857.	1858.	1859.	1861.
Brown and white	\$955,768	\$1,174,928	\$2,662,937	\$1,903,616
Colored	131,815	631,149	143,330	408,155
Duck	6,435	8,437	23,758	11,110
Total.....	\$1,094,018	\$1,814,514	\$2,830,425	\$2,322,881

When it is remembered that China has a population of 420,000,000, of whom a very large proportion wear cotton goods, and the remainder, to a considerable extent, woolen, and that all these goods are made by hand, or very primitive machinery; the cottons, to a considerable extent, from material imported from India, and known to be far inferior to the American description, it seems to be a matter of almost certainty, now that American goods made by the best machinery of the East, are well introduced, that an almost limitless demand for those goods may spring up. The extent to which English goods have been introduced, is seen as follows:

EXPORT COTTON GOODS—ENGLAND TO CHINA.

	Yarn, lbs. *	Goods, yards.	Value.
1844.....	3,399,074	98,798,097	£1,733,027
1852.....	3,170,992	119,168,851	1,507,104
1855.....	3,614,709	41,672,293	638,126
1856.....	5,775,620	112,665,202	1,541,133
1858.....	6,231,991	138,488,957	1,847,976
1859.....	9,198,629	193,935,933	3,185,956
1860.....	8,764,036	222,963,780	3,567,775
1861.....	6,733,914	243,654,141	3,484,241

In 1855 there was a decline in the movement, consequent upon political difficulties; since then the increase has been rapid, mostly in yarns to supply native factories. In this branch of business the United States have done little or nothing. The English sell an aggregate of \$17,000,000 worth of cotton goods, while the United States sell little over \$2,300,000. Yet the English buy the cotton of India, and of the United States, and pay freight both ways, and still take the trade from the United States, which have their own cotton.

While the increased exports to China have been mostly gold, the United States have purchased an increasing quantity of tea, and also of silks, raw silks for purposes of manufacturing here.

The apparent consumption of tea in the United States for the last three years has been as follows:

	Green.	Black.	Japan.	Total.
1859....lbs.	20,722,568	14,188,797	964,440	35,875,805
1860.....	16,298,440	13,548,589	315,306	30,162,335
1861.....	10,394,476	19,142,128	473,418	30,010,022

The whole quantity consumed, according to these figures in the last twelve years, has been 384,021,739 pounds, an annual average of 32,001,813 pounds. If the population and consumption of each year is taken, however, the results are as follows:

	Population.	Consumption, lbs.		Population.	Consumption, lbs.
1850...	23,200,000	27,858,482	1856...	28,000,000	33,622,306
1851...	24,000,000	28,819,120	1857...	28,800,000	34,582,943
1852...	24,800,000	29,779,756	1858...	29,600,000	35,543,580
1853...	25,600,000	30,740,394	1859...	30,400,000	35,875,805
1854...	26,400,000	31,701,033	1860...	31,445,089	30,162,335
1855...	27,200,000	32,661,668	1861...	32,245,089	30,010,022

These figures show the continued increase in the consumption of tea per head in the United States, during a period of great prosperity, in which tea has been free of duty. The events of the present year may be expected to produce a great change, not only by the decline of general business, but in consequence of the war taxes levied on tea. The tariff act of July, 1861, imposed fifteen cents per pound duty.

This circumstance gave rise to a large speculative movement, which resulted in an advance of some four or five cents per pound.

The impulse given by the new tariff was, however, checked by the disaster that, about that time, befel the Union arms in Virginia, and for a while business was prostrate; but towards the end of August the advices received from China proved wholly unpromising with reference to shipments of green teas, and this fact, coupled with that of the rapid reduction of the stock in market here, served to further enhance their value. The advance initiated by the new duty continued during the remainder of the year, and under its influence, as well as that of a constantly diminishing stock, green teas reached a price unknown for many years; certain qualities of gunpowder bringing as much as a dollar per pound. The duty was subsequently raised to twenty cents. The following are the highest and lowest figures of the year:

	Cents. Jan., 1861.	Cents. Dec., 1861.	Cents. July, 1862.
Green—Hyson cargo grade	37 @ 40	75 @ 82	80 @ 85
Young hyson	36 @ 40	73 @ 82	80 @ 83
Hyson skin	30 @ 33	50 @ 53	50 @ 55
Twankay	30 @ 33	50 @ 53	80 @ 83
Gunpowder	38 @ 41	70 @ 78	.....
Black—Oolong	30 @ 32	55 @ 57	60 @ 63
Ningyong	30 @ 32	55 @ 57	.....
Souchong	23 @ 26	43 @ 45	.....
Congou	23 @ 26	43 @ 45	.....
Ankoi	16 @ 18	37 @ 40	.....

In 1859 Japanese tea had just come upon our market, and there seemed to be a growing taste for it. The expectations of the trade have not been disappointed. This description of tea is now established in public favor, and the importation has increased from a mere nominal quantity, in 1859, to nearly half a million of pounds, the estimated receipts of the past year.

The value of the raw silk imported have been, of late years, as follows into the United States:

1856.....	\$991,234	1859.....	\$1,619,157
1857.....	953,734	1860.....	1,780,140
1858.....	1,540,195	1861.....	1,411,416

The great change which present difficulties are producing in the values

of raw materials for clothing, may impart an extra demand for Chinese silks, while it cheapens the opening market for American cotton.

The area of China is computed at 5,000,000 square miles, and the population 420,000,000. The Empire is divided into three parts for administration purposes, China Proper, Manchuria, and the Colonial Possessions. Central China, the flowery land and home of agriculture in that country, embraces near 2,000,000 square miles, one-third of which is classed with the best tillage lands of the world.

The Chinese are alive to the benefits of river steamers, and to the advantages which shipments on European vessels give in safety and certainty of insurance. The internal trade of China, aided by the unusual facilities derived from its water communication, ramifies over all the provinces, and is of inconsiderable magnitude. Junks, barges, and whole fleets of smaller boats cover its canals and rivers, the tonnage of which is said not to be exaggerated in equalling it with the combined tonnage of all other nations! The coasting trade is comparative small, and is much impeded, not only in dangers of navigation along a coast frequently visited by storms of terrific violence, but by bands of pirates, who roam about almost with impunity, and make an easy prey of defenceless traders. The Chinese merchant calculates to lose one venture in three. He now avoids the risk by freighting in foreign bottoms, and this throws a large amount of trade into American hands, other than the direct trade between the two countries. It is evident that with the opening facilities for intercourse, that the American river steamboats penetrating into the vast network of rivers, which command the production of so many millions of industrious persons, have an immense future before them. A considerable number of steamboats has already been sent out to China in the course of the last few years from New York, Boston, and San Francisco, and so far as heard from, with extremely profitable results. A number more are now being fitted out for the same adventure, one or two at New York, but particularly at San Francisco, and it is thought that a large number could follow them with abundant profit to their owners. The extent of country drained by the Chinese rivers thrown open to trade, as well as the disposition of the Chinese to hand over their transport trade to foreigners, opens out an amount of employment for steamers which in the distant future may far exceed that afforded this class of vessels in the Mississippi valley.

In one of the last China papers it is stated that on the Yang-tse-Kiang there were twenty-four steamers, of which nineteen were English and five American. A San Francisco paper learns that six are building in England specially for that trade, and that some disposition exists on the part of the English government to avail itself of the call for steamers in the China market to dispose of some old gunboats. There are also steamers building in England for a line between Shanghai and the ports of Japan.

It is computed that during the rebellion epidemic, now prevailing in China, one million of junks and boats have been destroyed, most of which were on the rivers and canals which feed the great basin of the Yang-tse-Kiang. The operation of steamboats is, it is well known, to shorten the time of transportation, and, by so doing, to virtually double the capital and stimulate the productions of all regions. What may not, therefore, be expected from their influence upon the million of boats in the great and rich basin, to which a foreign demand for its commodities is just imparting new life.

PROGRESS OF POPULATION IN MINNESOTA.

BY J. A. WHEELLOCK.

By the territorial census of 1849, the population of the Territory of Minnesota, embracing what is now Dakota, was 4,780. Of this number, the returns show 723 for settlements now outside of the State, leaving the population of the State as now bounded, 4,057. The United States census of Minnesota Territory for 1850, showed a population of 6,077. Subtracting therefrom the number given the previous year for Dakota, not otherwise ascertainable, the result for the State, as now bounded, would be 5,354.

The following table, then, exhibits the growth of population in Minnesota for ten years, within the limits of the present State:

Year.	Authority.	Number.
1849—	Territorial census.....	4,057
1850—	United States census.....	5,354
1857—	Territorial census.....	150,037
1860—	United States census.....	172,022

TABLE OF VOTES.

The following table exhibits the increase of the vote at the general elections for Territorial and State officers, and taking into account the degree of excitement and other circumstances attending each election, is valuable as showing the ratio of votes to population, and affording a basis for future calculations:

	No. of votes.	No. persons to one vote.
August, 1849.....	682	5.94
September, 1851.....	1,208	....
October, 1853.....	2,845	....
October, 1855.....	7,944	....
October, 1857.....	35,340	4.24
October, 1859.....	38,917	....
November, 1860.....	34,743	4.95

RATIO OF INCREASE.

The table of population shows a ratio of increase of 56 per cent yearly, from 1849 to 1857, and of less than 5 per cent yearly, from 1857 to 1860.

The table of votes shows an increase of 60 per cent yearly, from 1851 to 1857; of 112 per cent yearly, from 1855 to 1857, and a slight decrease from 1857 to 1860.

The swell and subsidence of the wave of population at the different periods above indicated, mark three well defined phases in the progress of the population of our State.

1. In the years immediately following 1850, the gold discoveries of California diverted immigration from the northwest, and moreover, until 1853 and 1854, the whole of that portion of Minnesota, west of the Mississippi River, was in the occupancy of the Sioux Indians. For these reasons population did not set rapidly towards Minnesota in 1854.

2. Accordingly, the table of votes shows that it was between 1854 and 1857 that the chief immigration to Minnesota took place. Over 100,000

were added to the population of Minnesota between the fall of 1855 and 1857, nearly trebling in two years. This extraordinary influx of population, with its accompanying exaggeration of property values, and wild riot of financial adventure, constitute this period one of the most remarkable in the history of the age, and is not likely to be repeated in the experience of our State.

3. The effect upon immigration of the violent reaction which followed, is shown in the halting pace of population between 1857 and 1860, when the increase was only 22,000 in number, or about 7,000 yearly, of which over 6,600 yearly, or about 19,828 for the three years, were the natural increase by birth, reducing the immigration for the period to about 2,000.

The census was taken at a period when the country was just recovering from the exhausting financial calamities of 1857. In the overflowing harvests of that year a new climacteric of recuperated commercial life was reached—a new period of healthy and vigorous growth was entered on, and now, notwithstanding the gloom of civil war which overhangs the nation, emigration has been pouring in with a new impulse.

The following table shows the absolute yearly and relative increase in the several periods above noted :

		Increase for the period.	Annual increase.	Ratio of an- nual increase.
1849.....	4,057	....	....	....
1850.....	5,350	1,293	1,293	31.6
1855, estimated.....	50,000	44,650	8,930	166.9
1857.....	150,037	100,037	50,018	100.0
1860.....	172,022	21,985	7,328	14.9

INCREASE COMPARED WITH OTHER STATES.

The increase of population in Minnesota in the first decade of its settlement, has been far greater relatively than that of any other State of the Union, in the corresponding period of growth.

A tabular comparison would occupy too much space, but it will suffice to say that of the Western States starting about the year 1800 or 1810, with about the same population as that of Minnesota in 1850—Michigan, Indiana, and Illinois—were each from 20 to 28 years in reaching the population attained by Wisconsin or Iowa in about 15, and by Minnesota, in 10 years. This fact strikingly illustrates the influence of improved modes of communication in promoting emigration to the West.

The following table will show the movement of population in eight States of the northwest in the last decade, as compared with Minnesota :

	Population 1850.	Population 1860.	Actual Increase.	Increase per cent.
Minnesota.....	5,330	172,022	166,692	3,127
Iowa.....	192,214	674,948	482,734	251
Wisconsin.....	305,391	775,873	470,472	154
Illinois.....	851,470	1,711,753	860,283	101
Michigan.....	397,654	749,112	251,458	88
Indiana.....	988,416	1,350,479	362,063	36
Ohio.....	1,980,329	2,389,599	359,270	18
Kansas.....	.....	107,110	107,110	..
Total.....	4,720,804	7,880,896	3,180,082	

The increase in all the free States was 5,450,916, so that the increase in the northwestern States was 58 per cent, or nearly three-fifths of the whole free growth. Minnesota contributed about five per cent, or one-twentieth of the northwestern increase, about three per cent, or one-thirty-third of the whole free growth, and about two per cent of the entire national gain.

The whole northwest gained in the ratio of 67 per cent over 1850. Minnesota gained 31 fold or 3,127 per cent.

Minnesota has thus grown in the last ten years more than twelve times as rapidly as any of the northwestern States, and nearly fifty times as rapidly as the average growth of all of them.

This is not, however, a fair comparison, as the geometrical ratios of increase are of course greater in the first stages of growth. It will be a better illustration to say that Minnesota shows a more rapid growth in the last ten years, than the most rapidly growing States in the period of their most rapid growth, as the following comparison will show:

	Rates of increase per cent.
Minnesota, from 1850 to 1860.....	3,127
Wisconsin, from 1840 to 1850.....	891
Iowa, from 1840 to 1850.....	347
Michigan, from 1830 to 1840.....	575
Ohio, from 1800 to 1810.....	408
Indiana, from 1810 to 1820.....	510

Minnesota, by this showing, has grown $3\frac{1}{2}$ times as fast in the last ten years as the most rapidly growing State of the Union, in the most rapid period of its growth; six times as fast as the average of the fastest States, and one hundred times as fast as the average increase of the whole Union.

COMPARATIVE INCREASE BY BIRTH AND IMMIGRATION.

It is interesting to trace the respective shares which the collateral agencies of birth and immigration have contributed to our population. The representative population of the State, as it stood on June 1st, 1860, was derived from the following general sources:

Number of persons born in Minnesota.....	32,246
Number of persons born out of the State, but in the United States.....	81,489
Number of persons born in foreign countries.....	57,502
Whole number of immigrants.....	138,991
Number not classified.....	785
Total representative population.....	172,022

Increment of Births.—The number of persons born in Minnesota, then, is nearly one-fifth, or 18.8 per cent of our whole population.

Of this number there were born before the census of 1850... 1,334
Born in the ten years ending June 1, 1860..... 30,912

The births in the last decade being 18.5 per cent of the whole increase of the decade.

The bearings of this fact will not be fully appreciated without recollecting that five-sevenths of our population have been acquired since

1855, that is in the last half of the decade. From the vote and partial census of 1855, I have the means of estimating the population of that year at about 50,000, leaving 122,022 as the increase of five succeeding years.

During the semi-decade ending with 1855, the deficiency of females was notoriously much greater than since then; so much so, indeed, as to have been felt as a serious social inconvenience.

The aggravated operation of this cause in California in 1850, reduced the annual proportion of births to 0.29 per cent or less than three to every one thousand of the population. The average annual ratio for the United States, is 2.75 per cent. In Minnesota, for the first half of the last census decade, the annual ratio could not have exceeded 2.5 per cent, except in 1850, when the half-breed and Indian women of the country replenished the easy domestic circles of our trading and trapping population in a ratio of 2.77 per cent.

Applying a ratio of 2.5 per cent to the progressive scale of population for the period, as estimated from the current vote, we have the following as the increment of births:

	Population.	No. of births.
1851.....	7,000	175
1852.....	10,000	250
1853.....	18,000	450
1854.....	30,000	750
1855.....	50,000	1,250

Total number of births for the period..... 2,875

During the five remaining years of the decade, the births were therefore 28,037, which, assuming a cumulative increase in the annual ratio of births, as society matured, and as the disparity between the sexes decreased, were probably distributed upon the ascending series of the scale of population, nearly as follows:

	Population.	Ratio per cent of births.	No. of births.
1856.....	100,000	2.95	2,956
1857.....	150,037	3.50	5,251
1858.....	152,000	4.00	6,080
1859.....	161,250	4.10	6,611
1860.....	172,022	4.15	7,137

Total number of births for the period..... 28,037

REMARKABLE FECUNDITY OF OUR POPULATION.

This table, whose correctness in the main cannot be disputed, shows a degree of local fecundity, if the numerical ratios of births can be so called, as unparalleled, so far as I know, in the recorded statistics of population, as has been the rapid concentration of the social elements necessary to produce the result.

This will better appear by comparison with the most prolific States of the Union in 1850. In Minnesota, the ratio of births per cent of population in 1860, was about 4.15 per cent. In Wisconsin, in 1850, it was 3.41; in Iowa, 3.17; in Indiana, 3.27; in Missouri, 3.30; and in polygamous Utah, 3.80, while the average of all the States was 2.75. Minnesota is therefore more than 50 per cent more prolific than the average of the Union, and more than twice as productive as New Hampshire and Vermont.

CAUSE OF THE LARGE PROPORTION OF BIRTHS.

The reasons of this extraordinary fecundity are obvious. It is only the young who emigrate. Our adult population is almost universally in the prime of youthful vigor—at an age when women are most fruitful—and in such circumstances as remove the social obstacles to matrimony arising from pride or poverty, while the isolation of a sparsely settled agricultural community adds intensity to all the natural motives which lead man to seek the companionship of the other sex. I have not yet tabulated the ages of our population, but a partial examination shows that over nine-tenths are under the age of 40 years, and four-fifths under the age of 30 years, while over two-fifths, or about 70,000, are at the most fruitful period of life, between 20 and 40.

This large predominance of the youthful classes in our population is, however, defeated of its full effect upon the natal roll from the great numerical disparity of the sexes.

The whole number of males is.....	92,588
The whole number of females.....	78,649
Excess of males	13,939

These masculine supernumeraries belong to the adult class, and are chiefly resident in our larger towns. Subtracting this neutral element from the productive part of our population, and supposing the equated remainder of the sexes married, we will have about 56,000 married persons under forty years of age, or 28,000 families, being 7,818 less the number of families—persons living in separate tenements—enumerated in the census. The remainder are either married persons over forty years of age, or unmarried persons occupying dwellings. We have, then, a little more than one birth annually to every four productive families, and one birth to five of the whole number of families. If our 13,882 bachelors were auspiciously mated, the number of births would be increased in the natural-course of events about 3,720 per year, making the total annual increment of population by births, 10,825—or about $6\frac{1}{2}$ per cent of the population—which without any accessions from abroad would give us a population by 1870 of 317,000.

IMMIGRATION.

Let us now compare the native with the immigrant increase :

The whole classified population of the State on June 1, 1860.	171,237
The whole number of persons born in the State was.....	32,246
The whole number of immigrants being.....	138,991

The immigrants being 81.17 per cent of the whole population. But a part of the population, 5,354 in all, belongs to the period prior to the census of 1850.

The whole classified increase of population between 1850 and 1860 was.....	165,883
Increase by birth.....	30,912
Increase by immigration.....	134,971

The native increase being 18.5 per cent of the whole increase of the decade, and the immigrant increase being 81.4 per cent of the whole.

I have already indicated the disastrous year 1857 as an epochal crisis in the history of the movement of population in Minnesota. The influence of the commercial collapse of that year is graphically portrayed in its effects upon the growth of population, and especially in the almost complete suspension, for a time of immigration.

For the three years before 1857, the increase of population was about.....	100,000
For the three succeeding years it was.....	21,985

But while nearly the whole growth of population before 1857 was derived from immigration, after that year nearly the whole increase was derived from births.

The accessions from these two sources were distributed as follows in the two periods of the decade before and after the census of 1857 :

FIRST PERIOD—SEVEN YEARS.

Increase by births from 1850 to 1857.....	11,116
Increase by immigration.....	134,567

Whole increase of the period.....	145,683
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SECOND PERIOD—THREE YEARS.

Increase by births from 1857 to 1860.....	19,828
Increase by immigration.....	2,157

Whole increase for the period.....	21,985
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Observe the complete inversion of proportions :

	By birth.	By immigration.
First period—per cent of whole increase....	7.62	90.19
Second period— “ “ “	92.38	9.81

LOSSES AND GAINS OF POPULATIONS.

Of course, the small number above given as the *increase by immigration* since 1857, which is simply the complement of the born increase, does not, by any means, represent the whole immigration of the period. It represents merely the gain by immigration, after deducting the immense loss of population which we suffered in consequence of the business disasters of 1857, when the horde of camp followers in our army of colonization were swept from our borders like chaff before the whirlwind—the speculators, gamblers, and cognate classes, who overran the country in emulous chase of bubbles of their own blowing.

The census affords collateral evidence of this loss of population, in the empty tenements, numbering 4,242, which are scattered over the State, and which represent, according to the present ratios of occupancy, a lost population of 19,000 souls. Our losses and gains of population for three years, from 1857 to 1860, may be thus stated :

Births.....	19,828
Immigration, about.....	22,000
Total accession.....	41,828
Loss by emigration and deaths.....	19,842
Total gain by births and immigration.....	21,985

The causes which drove the large number above named from the State had exhausted their force in 1859. Until that year, so entirely had factious schemes of speculation absorbed the attention of our people, to the neglect of agricultural industry, that they did not even produce food enough for home consumption.

The explosion of values in the financial crash of 1857—the bursting of all the fine schemes of town-building and land speculation of that time, with its terrible recoil of notes and mortgages, left the large majority of our population without any resource. A part of them turned their attention to farming, the rest sought relief from the pressure of the times in emigration.

The effects of this general return to agricultural and other industrial pursuits begun to be witnessed in the fall of 1859, when, for the first time, production exceeded consumption, and a tide of exports began to flow from our borders which has been rapidly widening and deepening ever since, and which has given our State a degree of solid prosperity never attained before. We may reasonably conclude that since 1859, with its well fulfilled promise of better days, there has been no loss of population by emigration from the State; while, on the other hand, the immigration to the State has been constantly increasing.

Estimated Population, Jan. 1, 1862.—Since the spring of 1860, when the census was taken, the influx of emigration has been very considerable. Though I have no data by which to form a judgment except the opinions of steamboat men, and other correspondents at the principal ferries and towns on the Wisconsin and Iowa border—it is certainly below the mark to affirm that 20,000 immigrants have come into the State during the summers of 1860 and 1861. If, now, we may assume the number of births to have continued in the ratio of 1860, or 4.15 per cent, we shall obtain the following result of the accessions of population from June, 1860, to January 1, 1862:

Population, 1860.....	172,022
Increase by births.....	10,861
Increase by immigration.....	20,000
Total estimated population, Jan. 1, 1862	202,883

PROBABLE FUTURE INCREASE OF OUR POPULATION.

It has been shown in a preceding page that Minnesota has increased in the last ten years 3,127 per cent, or six times as fast as the most rapidly growing States of the Union, in the decennial period of their most rapid growth. This of course affords no rule for estimating its future growth, except as indicative of its relative position in the scale of progress. An examination of the decennial movement of population in the Northwestern States, establishes the general fact, *that each successive State in the geographical march of population westward has grown more rapidly than its predecessors.*

This fact recurs with such uniformity in each case as to claim something of the character of a fixed law. The following examples, taking the States in their geographical order from east to west, will show their relative progress for periods of ten years—starting from points of equal population:

1.

Population of Ohio.....	1800—45,365	1810—230,760
Population of Michigan.....	1833—45,000	1843—262,267

2.

Michigan.....	1810—4,672	1820— 8,896	1830— 31,639
Indiana.....	1800—4,875	1810—24,250	1820—147,178

3.

Indiana.....	1820—147,178	1830—343,031	1840—685,866
Illinois.....	1830—157,445	1840—467,183	1850—851,470

4.

Illinois.....	1810—12,282	1820— 55,211	1830—157,445
Wisconsin	1836—11,686	1846—155,277	1856—600,000

5.

The population of Wisconsin in 1830 was 3,452; in 1836, 11,686. Iowa in 1836 had 10,531. Those States must therefore have had a population in 1832 of about 5,500 each, or about the same as Minnesota in 1850. They compare then as to progress in population with Minnesota as follows:

	Year.	Population.	Year.	Population.	Rate of Increase in ten years.
Wisconsin	1832	5,500	1842	46,678	748 per cent.
Iowa.	1832	5,500	1841	62,516	1036 "
Minnesota.....	1850	5,354	1860	172,000	3127 "

So that Minnesota has grown from three to four times as rapidly as those States in the corresponding period of growth. To state this in another form, Iowa, moving at the same pace as Illinois, starting with a population of 192,000 in 1850, should have had in 1860 but 547,200, or 185 per cent increase; but she had in fact 675,000, or 251 per cent increase. Wisconsin, starting in 1850 with a population of 305,000, if she had kept even step with Illinois, should have in 1860 but 640,000, or 116 per cent increase. She had really 776,000, or 154 per cent increase. Again, Minnesota, growing at the same rate as Wisconsin and Iowa, should have had but 56,000 inhabitants, or an increase of 944 per cent. But she had in fact 172,000, or 3217 per cent.

This constant increase in the ratios of frontier growth, rests upon no accidental or temporary conditions. But secondary to these general principles, the causes of the cumulative ratios of frontier growth may be summed up briefly as follows:

1. The rapid increase of the whole population, and its cumulative pressure upon the means of subsistence in the older States, compelling migration to the newer.

2. The rapid increase in the population of the older Western States, makes each of these States, so to speak, a reservoir of emigration to the new States upon their borders. The sources of supply are thus brought nearer and nearer to the frontier every decade, while the volume of emigration is expanding.

3. Improved means of communication. During the early epochs of

western settlement, Illinois was three or four weeks from New York, it is now but three days. Minnesota, which could then scarcely have been reached in six weeks, is now but four days from the Atlantic seaboard.

These are permanent causes. Foreign emigration might be directed to entirely new fields, without greatly diminishing their effect. Looking to the operation of these causes alone, what will be the future growth of Minnesota? Taking as a basis of calculation the neighboring States of Iowa and Wisconsin, the position and characteristics of which are both combined in Minnesota, we have compared their growth with that of Minnesota for the decade corresponding, as to the numerical starting points, with that of Minnesota between 1850 and 1860. We have already shown that Minnesota, in the first decade of her growth, increased in population 3217 per cent, against an average of 892 per cent for the corresponding period of the growth of Wisconsin and Iowa. Starting in 1832 with the population of Minnesota in 1850, Wisconsin was fifteen years and Iowa seventeen in acquiring the population (172,000) which Minnesota gained in ten. Their growth after that period was as follows:

			Ratio of Increase.
Wisconsin...	1847—180,000	1857—650,000	261
Iowa	1850—192,000	1860—675,000	251

So that moving upon the same plane of progression as Iowa and Wisconsin, Minnesota, starting upon her second decade with a population of 172,000, should have in 1870 a population of 610,000, or 261 per cent increase; and in 1880, moving only at the speed of Illinois, she would have 1,300,000, or a little over 100 per cent increase. This increase, at least, is assured to us by the pressure of causes permanent in their character, and unceasing in their operation. But much more than this is assured to us by the law of a constantly increasing rapidity of frontier growth which our citations have demonstrated.

In our first decade, in accordance with this law, our population increased more than three times as fast as that of Wisconsin and Iowa for the corresponding period of their growth, dating from the same point in population. If we should allow for the next decade an addition of only 50 per cent over their ratios of growth, it would give us in 1870 a population of 845,000; and if we add 50 per cent only to the ratio of Illinois for the next decade, we shall have a population in 1880 of over 2,112,000—results which we may calculate upon with reasonable certainty.

But to the agencies already noticed, as accelerating the increase of population in the new States, must be added another element in the future growth of Minnesota, which must come into full and effective operation before the close of the present decade, and that is the restricted supply of fertile lands for the formation of new settlements in the West and South, and the consequent inevitable determination of the whole westward movement of population in the direction of Minnesota and the northwestern valleys of whose outlets she holds the keys. Thus imperative physical conditions co-operate with the established laws and tendencies of frontier growth to promise an augmentation of population in Minnesota in the next twenty years, far greater than has been attained in an equal period by any State of the Union.

DISTILLATION OF PETROLEUM.

SPECIFICATIONS OF THE PATENT GRANTED TO CHARLES BLACHFORD MANSFIELD, OF CLARE HALL, IN THE UNIVERSITY OF CAMBRIDGE, FOR AN IMPROVEMENT IN THE MANUFACTURE AND PURIFICATION OF SPIRITUOUS SUBSTANCES, AND OILS APPLICABLE TO THE PURPOSES OF ARTIFICIAL LIGHT AND VARIOUS USEFUL ARTS.*

THE first part of my invention relates to the manufacture of certain spirituous substances and oils, and consists in treating tars and bituminous substances, or the oils obtained from them, so that the most volatile, oily, or spirituous substances which are contained in them are separated, viz., such as are so volatile that a current of air passed through them at ordinary atmospheric temperatures, will take up so much of their vapor as to burn with a white flame; and this part of the invention also relates to separating from each other certain oils and spirituous substances, which are contained in the tar or oily matter, distilled from any of the different varieties of mineral coal, when coal is distilled either alone or mixed with other substances, either in the process for making illuminating gas, or in any processes in which coal is submitted to destructive distillation, which oils and spirituous substances have not hitherto been obtained separate from coal-tar and from each other. This part of the invention also relates to the conversion of some of the oils and spirituous substances separated from coal-tar into fragrant oil by the action of nitric acid.

Since that part of my invention which is applicable to bituminous oils and tars generally is applicable particularly to coal-tar, I will first describe its application to coal-tar, and will then show its general application to other tars and bituminous oils.

In order that my invention may be most fully understood, I will first state briefly the nature of the substances usually prepared from coal-tar by distillation, and then I will explain what are the peculiar properties of the substances which I obtain, and then I will describe the means pursued by me in order to obtain substances possessing such properties.

It must be understood that coal-tar is not a substance of invariably similar constitution, but that though its constituents are generally the same, their proportions vary in different samples, and the causes of the variations therein are not yet understood.

In the distillation of coal-tar the products which are generally recognized as distinct, and are separated from each other, are ammoniacal water, oil heavier than water, which is usually called dead oil, and oil lighter than water. The light oil, (of which the first and the last por-

* We publish this at the request of several subscribers. So far as these specifications refer to the purification of coal oil, they are of course safe rules to follow in the treatment of petroleum. In fact, the most of the knowledge possessed respecting the distillation, &c., of rock oil, is either directly or remotely derived from this patent, together with those obtained by Young and Brown.—Editor *Merchants' Magazine*.

tions are sometimes received separately, in which case the first portion only is called naphtha,) comes over at first accompanied more or less with the water, and afterwards the heavy or dead oil which is separated from the light oil by changing the receiver when the distillate begins to sink in the water. Some samples of tar also yield a large quantity of naphthaline, an oil which is solid at ordinary temperatures.

In distilling tar which contains much naphthaline, the last portions of light oil and the first portions of heavy oil will deposit solid matter in cooling. In some tar the naphthaline, together with paranaphthaline, another solid oil, exists in such quantity, that a large proportion of the heavy oil solidifies in cooling. Other samples of tar contain so little naphthaline that no solid matter is deposited, except by the last portions of the oil which are distilled over at the highest temperatures, to which the retorts are generally exposed. The distillation of coal-tar is usually stopped when the oil has ceased to run freely fluid, and a yellow semi-solid matter appears. The light oil, or the naphtha alone, is usually rectified from some heavy oil which it contains by distillation, and is more or less purified by treatment with acid, which is usually concentrated sulphuric acid, if the oil be required colorless, and then forms the rectified coal naphtha of commerce; the less volatile part of the light oil, if separated, and the heavy or dead oil, is not rectified usually, but is applied to coarse purposes in which a pure article is not required.

It is known to chemists that the crude oils of coal-tar contain a quantity of oily matters, some of which are acid, and have received names such as carbolic and rosolic acids and others, and some alkaline, which have been called aniline, picoline, pyrrol, &c.; and besides these an oil which, by exposure to the air, becomes converted into a brown resinous matter. The object of the processes of purification of the oils has been to remove these substances. The nature and properties of the neutral oils, some of which constitute the rectified coal naphtha, have not hitherto been known except that they are hydro-carbons, that is, composed of hydrogen and carbon alone, and that the naphtha has been supposed to be a mixture of several such bodies.

I have thought it necessary to state the above facts in order more readily and clearly to define the nature of this part of my invention, which consists of manufacturing certain hydro-carbons and other substances from tar.

In speaking of temperatures, I at all times refer to the centigrade therometrical scale, (known also as that of Celsius,) in which the freezing point of water is marked, 0 degrees, and the boiling point of water, 100 degrees.

If the unrectified light oil of commerce be distilled without water, it generally commences to boil at about 100 degrees, and continues to distil till the temperature of the boiling fluid reaches 200 degrees, or thereabouts; the last portions often become solid as they cool. The rectified naphtha of commerce of the best sort generally commences to boil at about 90 degrees, and a portion of it (which seldom exceeds one-eighth of the entire quantity) distils over before the temperature in the retort reaches 100 degrees; and the temperature gradually rises as the distillation continues till it reaches about 160 degrees, when the retort becomes generally dry. The rectified naphtha does not solidify or deposit crystals on being submitted to a temperature of 20 degrees, (20 degrees be-

low 0 degrees,) but some samples of the crude naphtha, if so treated, will deposit crystals or solid matters, which consist of naphthaline, and if separated will be found to remain solid at about 20 degrees, and when fused to boil at about, or somewhere above 200 degrees. I mention these properties to distinguish rectified naphtha from the spirituous substances which I manufacture from naphtha or tar. And here I would state that the supposition which prevails among naphtha makers, that "*the strength*" of coal naphtha is determinable by its specific gravity in the same way as that of alcoholic or pyroxylic spirits, is entirely fallacious. In the first place, strength as applied to these spirits means relative freedom from water, with which they will mix in all proportions, and the specific gravity and volatility of the mixture are respectively in direct and inverse ratio to the amount of water in the mixture; so that the specific gravity is a true index of the strength of such spirits, but the term "*strength*" can have no corresponding meaning as applied to coal naphtha or spirituous hydro-carbons, which are not capable of dilution with water. In the second place, the specific gravity is no index of the volatility of the naphtha, or of the quantity of the more volatile spirituous substances which it contains beyond certain limits. If the rectified naphtha has a specific gravity above .875 degrees, taking water to be one, it may be considered as a sign that it still contains naphthaline or some other oil, which boils at a temperature above 200 degrees, or some of the impurities which are removable by acids, and so far the specific gravity is a test of the volatility of the naphtha. But the neutral oils and spirituous substances which compose the pure naphtha (that is, when consisting only of hydro-carbons) are all nearly of the same specific gravity, viz., from .85 to .87, and in practice the specific gravity of the naphtha is rarely reduced so low as .86; and in the state of purity in which the spirituous substances are obtained by rectification sufficient for ordinary purposes, I have found the most volatile of them have a greater specific gravity than some of the less volatile, so that the specific gravity is not a true test of the volatility of naphtha; and I state this lest it should be supposed that the spirituous substances which I produce from coal-tar or coal-naphtha are not different from, or not more volatile than ordinary naphtha, because the specific gravity of the spirituous substances manufactured by me may be the same as or even greater than that of ordinary naphtha.

I believe the only perfect test of the relative volatility of such spirituous substances, oils or naphthas, is by comparison of their boiling points, by which I mean the numbers marked by the index of a thermometer, when the sensitive part of such thermometer is immersed in the fluids, whose volatility is required to be known, the fluids being at the time in active ebullition. The boiling point in such matters is never constant unless the fluids be absolutely pure, and such purity is not easy to be attained in practice in the separation of fluids of different volatility when dissolved in each other, as is the case with the oils and spirituous substances in coal-naphtha, and it is found that the boiling point will continually rise as the fluid boils away into vapor. The points to be particularly noted in so ascertaining the volatility of such fluid are, first, the point at which ebullition commences; secondly, the points about which the largest quantity boils off; and, thirdly, that at which the whole has volatilized; and this test is most conveniently applied in a small glass re-

tort with a tubule closed by a cork through which a glass mercurial thermometer passes, the bulb of such thermometer being placed below the surface of the fluid which is to be maintained in ebullition. The volatility of hydro-carbons may also be roughly estimated in some cases by placing a few ounces of the fluid in a bottle closed by a cork, through which two tubes of about one-eighth of an inch bore pass, one terminating below, and the other above, the surface of the fluid, on a stream of air being forced through these tubes, entering by the former tube and escaping by the latter, and a lighted match being applied to the orifice of the latter, by observing the magnitude and the proportion of white light in the flame, if any, which appears at the mouth of the tube; and this apparatus I shall call a "test bottle," when I subsequently refer to it. And in some cases the non-volatility of hydro-carbons may be ascertained by their non-inflammability at the surface on approach of a lighted match.

I will now proceed to state what are the spirituous substances and oils which I have found in coal-tar, and which I also separate more or less from each other, or manufacture more or less mixed with each other, or with other substances by the methods hereafter described:

First, I have obtained a spirituous substance which is extremely volatile, which boils when pure at about 60 degrees or 65 degrees, does not solidify at 20 degrees, and has a powerful sulphurous or alliaceous smell. This I call Alliole.

Secondly, a spirituous substance which is less volatile than the last, which boils when pure at about 80 degrees, and solidifies at 0 degrees, being the only one of the spirituous substances that can be solidified by a temperature above 20 degrees, having a smell resembling almonds, which I call Benzole.

Thirdly, a spirituous substance which boils at about 110 degrees, and does not solidify at 20 degrees, which I call Toluole.

Fourthly, a less spirituous and rather oily fluid which boils at about 140 degrees, which I call Cumole.

Fifthly, an oil which boils at 170 degrees, which I call Cymole.

The aforesaid spirituous substances and oils are obtained or manufactured chiefly from "*light oil*," but the Cymole is found also in "*heavy oil*;" and,

Sixthly, I have found in the heavy or dead oil, an oil which, when pure, boils at about 240 degrees, and is of specific gravity 900, which I call Mortuole.

I now proceed to state how these substances may be obtained, first remarking that I shall describe other properties of some of these spirituous substances and oils when treating of the preparation of each.

(To be continued.)

COMMERCIAL CHRONICLE AND REVIEW.

CHANGE IN BUSINESS—GOVERNMENT PAPER—NEW TARIFF—ADVANCE IN PRICES—ARMY PAY—EFFECT ON TRADE—IMPORTS AT NEW YORK—ENTRIES FOR CONSUMPTION—RISE IN STERLING—EXPORTS FOR NEW YORK—DOMESTIC PRODUCE—SPECIE MOVEMENT—DEMAND FOR EXPORT—BOARDS—RATES OF BILLS—COST OF EXPORT—CALIFORNIA—UNITED STATES STOCKS—SILVER—STAMPS—PAPER CURRENCY—SILVER COINAGE—AMOUNT OF PAPER—GOVERNMENT INTEREST—TAX LAW—GOVERNMENT REVENUE—EXCISE LAW—OPERATION OF—INFLATION BEGAN—RISE IN PRICES—LAW OF FINANCE.

THERE has been a decided change in the course of business during the month, mostly influenced by the course of the government in relation to a paper currency connected with the operation of the new tariff law. The combined operation of these two influences has been greatly to enhance the cost of imported goods, and, as a consequence, to make the course of the fall trade very uncertain, since the higher tariff and the higher rate of exchange became prohibitory, unless the sale prices advance to an extent which will cover the increase. This has taken place to some extent. In many goods the advance has been 30 @ 50 per cent, and importers have, as a general thing, been disposed to hold, while others have been desirous to get into stock, in anticipation of the rise which renewed demands for consumption in paper money, will not fail to produce on moderate supplies of goods. The economy of the past year has left small stocks on the shelves of the storekeepers, as well as great wants with the consumers. The only difficulty in the way of supplying these demands at lucrative rates, is the depression of industry, which has been diverted from its regular productive employments to the service of the armies. It is no doubt the case, a large proportion of those now with the armies, what with the regular pay, the bounties of the government, of the States, and of the cities, earn at least as much, if not more, than in times of peace, and that these earnings, pretty well distributed through the country, are applied to the purposes of trade. But the capital of the country nevertheless diminishes for want of the regular productive employment, and with the decrease of capital prices rise, so that a larger amount of money is required to purchase the same quantity of goods. The imported goods have hitherto felt only the adverse influences to which we have alluded, viz., the duties and exchange. Comparatively, the trade of the port has been as follows:

IMPORTS, PORT OF NEW YORK.

	Specie.	Free goods.	Entered for—		Total.
			Consumption.	Warehouse.	
January.....	\$168,658	\$2,552,050	\$6,665,396	\$3,141,725	\$12,620,829
February.....	62,007	3,881,478	7,058,174	3,870,486	13,872,140
March.....	89,327	3,476,004	10,812,689	4,841,846	18,719,866
April.....	26,152	2,232,315	7,141,197	3,853,218	13,252,882
May.....	110,388	1,146,093	8,091,120	4,600,920	12,948,516
June.....	61,028	1,122,092	7,278,953	2,874,127	12,336,195
Total, 6 months..	\$512,555	\$14,210,027	\$44,645,529	\$28,682,322	\$85,050,433
“ 1861.....	25,909,668	17,285,911	31,991,257	28,672,040	103,858,876

The quantity of goods entered for consumption has diminished for the month, as compared with May, and that entered warehouse has also been less. The doubtful operation of the new tariff, induced dealers to withdraw goods from bond, lest they should be subjected to the higher rates. The aggregate import of goods for consumption shows an increase of 50 per cent, as compared with last year, but the receipts of specie have comparatively ceased. The free goods greatly declined, as the operation of the tariff excluded a greater number of articles from the free list. The rate of sterling exchange has risen during July, 10 per cent, making an important difference in the profits. While this circulation has operated against imports, it has served to stimulate the exports, by affording a larger premium for the bills. This has, in some degree, been counteracted by an advance in the rates of freight, which have ruled very high. For the six months ending with June, the exports of the port were as follows:

EXPORTS, PORT OF NEW YORK.

	Specie.	Foreign.		Domestic.	Total.
		Free.	Dutiable.		
January.....	\$2,658,374	\$27,193	\$149,493	\$12,053,477	\$14,948,437
February.....	3,776,919	49,066	208,757	10,078,101	14,112,843
March.....	2,471,233	65,388	458,917	8,985,176	11,930,714
April.....	4,037,675	56,350	607,678	8,002,094	12,703,797
May.....	5,164,536	76,971	752,797	9,837,693	15,342,097
June.....	9,867,614	43,358	372,561	10,048,832	20,382,375
Total, 6 months..	\$27,976,351	\$318,336	\$2,550,203	\$59,005,373	\$89,850,200
" 1861.....	3,249,488	1,685,329	3,438,463	61,477,439	69,850,669

The exports of domestic produce rose during June, as compared with the previous months. The prices of the leading commodities declined under large supplies, while exchange rose, giving a double stimulus to the movement. The exports of foreign goods were moderate, but the shipments of specie became very important—the aggregate for the month reaching very nearly \$10,000,000, and for the six months, \$28,000,000, being the reverse of the operations of last year, when the imports were very large and the exports small. The apparent value of the business this year, for the port of New York, shows, as compared with last year, as follows:

	1861.		1862.	
	Goods.	Specie.	Goods.	Specie.
Imports.....	\$77,949,208	\$25,909,668	\$84,537,878	\$512,555
Exports.....	66,601,281	3,249,438	61,873,849	27,976,361
Excess of imp'ts	\$11,348,087		\$22,664,029	

The amount of goods to be paid for was nearly double what it was last year, but the exports of specie far exceed what such an apparent balance requires. The shipments were accelerated by discredit arising out of the paper operations of the government.

The specie movement was as follows:

SPECIE AND PRICE OF GOLD.

	1861.				1862.		
	Received.	Exported.	Received.	Exported.	Gold in bank.	Price of gold.	
Jan. 4...	.....	.....	.....	\$442,147	\$28,983,878	2 a 4	prem.
" 11...	\$1,445,885	.....	\$885,928	1,035,025	25,373,070	4 a 5	"
" 18...	1,446,219	.....	.....	547,703	26,120,859	4 a 4½	"
" 25...	1,246,029	\$22,855	627,767	322,918	26,698,728	2 a 3½	"
Feb. 1...	1,514,154	289,689	.....	310,484	27,479,533	3½ a 3½	"
" 9...	1,052,318	115,698	854,000	976,235	28,196,666	8½ a 3½	"
" 15...	1,056,426	117,101	614,146	1,156,154	28,114,148	4 a 4½	"
" 22...	.....	187,253	759,247	734,512	28,275,992	3 a 3½	"
March 1...	855,755	176,161	741,109	510,774	29,326,959	2 a 2½	"
" 8...	.....	.....	679,075	585,336	30,436,644	1½ a 2½	"
" 15...	815,524	128,816	677,058	477,835	30,773,050	2 a 1½	"
" 22...	.....	91,161	.....	540,968	32,028,390	1½ a 1½	"
" 29...	699,597	6,088	490,368	779,564	32,841,862	1½ a 1½	"
April 5...	996,445	628,708	581,292	678,826	33,764,382	1½ a 1	"
" 12...	1,110,281	323,906	.....	1,505,728	34,594,668	1½ a 2½	"
" 19...	.....	328,127	617,279	693,432	34,671,528	2 a 1½	"
" 26...	844,577	1,000	635,546	1,151,800	35,297,944	1½ a 1½	"
May 2...	.....	800	410,804	712,275	35,175,828	2½ a 3½	"
" 9...	868,600	27,695	484,019	1,574,166	32,239,868	3½ a 3½	"
" 17...	755,102	.....	604,682	1,098,081	30,280,697	8 a 3½	"
" 24...	1,913,355	.....	604,682	938,032	30,672,760	3½ a 3½	"
" 31...	2,282,187	500	224,911	881,452	31,397,284	3½ a 3½	"
June 7...	1,618,876	650	553,035	1,647,299	31,284,382	3½ a 4½	"
" 14...	617,361	18,976	852,391	1,990,327	31,162,048	4½ a 6½	"
" 21...	986,143	222,546	612,461	3,156,988	31,047,945	6 a 6½	"
" 28...	.....	2,070	393,212	3,094,101	30,832,626	7 a 9½	"
July 5...	811,268	2,200	.....	2,647,060	31,790,519	9 a 10	"
" 12...	.....	1,588	641,451	2,424,916	32,098,174	9½ a 17	"
" 19...	1,244,000	1,760	441,179	1,846,023	31,926,609	17 a 20	"
Total..	24,172,997	3,148,878	13,510,114	84,966,954	.....	

The demand for export became very active in June, and still continues so. A considerable quantity of stocks came back from Europe for sale here, and the proceeds were remitted in gold at a time when the disposition here was to hold gold for a rise, in view of the inevitable depreciation which would overtake the government paper in presence of large quantities to be issued. The premium on gold rose rapidly under the double demand, as well for export as for hoarding or holding. It was argued that this rise in gold would prevent its export, by making it too valuable to be remitted. This rise is only relative, however. It is very evident that where there is an active demand for gold to export that its value will rise until it exceeds the point at which it will be profitable to remit it, when the export will cease. On the other hand, if there is a demand for gold at home to hoard, the price will also rise, and, under such circumstances, that rise will bring gold from abroad, or, at least, stop it from going. When both demands exist the rise will take place more rapidly; but the fact that the export demand is the most effective will show itself in the exchanges, which, in the paper medium, rise quite as fast if not faster than gold. The proof of this is seen in the quotations of exchange, which have been as follows:

RATES OF EXCHANGE.

	London.	Paris.	Amsterdam.	Frankfort.	Hamburg.	Berlin.
Dec. 1,	109 a 109½	5.25 a 5.15	40½ a 40½	41 a 41½	85½ a 86	73½ a 74
" 15,	110½ a 110½	5.15 a 5.10	41½ a 41½	41½ a 42	86½ a 87	74 a 74½
Jan. 1,	110½ a 118	5.12½ a 5.05	42 a 42½	42½ a 43	87½ a 88	74½ a 75
" 15,	118½ a 114	5.05 a 4.90	42½ a 43½	43½ a 43½	87½ a 88½	75½ a 76½
Feb. 1,	118 a 113½	5.10 a 4.95	42½ a 43½	43½ a 43½	87 a 88½	75½ a 76
" 15,	115 a 116½	4.97½ a 4.90	42½ a 43½	43½ a 44	87½ a 88½	76½ a 77
Mar 1,	112 a 118	5.05 a 5.00	42½ a 43	42½ a 43	87 a 87½	75½ a 75½
" 15,	112½ a 112½	5.07½ a 5.08½	42½ a 43	42½ a 43½	86½ a 87½	74½ a 75
" 22,	111 a 112½	5.08½ a 5.00½	42 a 42½	42½ a 42½	86½ a 87½	74 a 74½
" 29,	111 a 112	5.10 a 5.05	42 a 42½	42½ a 42½	86½ a 87½	74 a 74½
Apr. 5,	111½ a 112½	5.07½ a 5.02½	42½ a 42½	42½ a 42½	86½ a 87½	74½ a 75
" 12,	111½ a 112½	5.10 a 5.08½	42 a 42½	42½ a 42½	86½ a 87½	74½ a 74½
" 19,	111½ a 112½	5.10 a 5.08½	41½ a 42½	42½ a 42½	86½ a 87½	74 a 74½
" 26,	111½ a 112½	5.02½ a 5.07½	42½ a 42½	42½ a 42½	86½ a 87½	74½ a 74½
May 2,	112½ a 113½	4.97½ a 5.02½	42½ a 42½	42½ a 47½	87 a 87½	74½ a 74½
" 10,	118 a 114	4.91½ a 5.02½	42½ a 43	42½ a 48½	87½ a 87½	75 a 75½
" 17,	118 a 114	4.96½ a 5.00	42½ a 43	42½ a 48½	87½ a 88	75 a 75½
" 24,	114½ a 115	4.92½ a 5.00	42½ a 43	43 a 48½	87½ a 88	75½ a 75½
" 31,	114 a 114½	4.95½ a 4.91½	42½ a 43½	43½ a 48½	87½ a 88	75½ a 76
June 7,	114 a 115	4.95 a 4.91	43 a 43½	43½ a 48½	87½ a 88½	75½ a 76
" 14,	117½ a 118	4.75 a 4.82	43½ a 44½	44½ a 45	89 a 89½	76½ a 77½
" 26,	120½ a 121	4.70 a 4.66	44½ a 45	45 a 45½	40 a 40½	78 a 78½
July 5,	120 a 122	4.70 a 4.62½	55½ a 45½	45 a 45½	45 a 45½	79 a 79½
" 12,	127 a 129	4.38½ a 4.31½	48 a 49	48 a 49	42½ a 43½	84½ a 85½
" 19,	128½ a 131	4.37½ a 4.32½	48½ a 49	48½ a 49	43 a 44	86½ a 87½

On the 19th of April, when the inflation may be said to have commenced, because at that time the government paper began to be issued in quantities, gold was, and had been for some weeks, at $1\frac{1}{2}$ premium, and exchange was at 112, giving $10\frac{1}{4}$ as the price of bills in a gold currency. At that rate there was a profit in the shipment of gold to the regular exchange dealers, altogether, individuals cannot ship to a profit under 111, or $1\frac{1}{2}$ per cent above the actual *par*. Since that time both gold and bills have advanced, but bills have kept the lead. For the steamer of July 19th the rate of gold was 19, and of bills 130, which would give 11 per cent as the rate of gold; thus showing that the demand for bills for remittance continued so active as to keep the rate in advance of that of gold. In other words, increasing the profits of gold exporters, and, consequently, the flow did not decline. For similar reasons the receipts from California are much smaller than last year. Nevertheless, the current of specie from the interior and from the channels of circulation continued to flow steadily towards the central point where the premium was the highest. While this rise in bills and specie took place, the prices of United States securities fluctuated as follows:

PRICES UNITED STATES PAPER.

	—6's, 1861.—			78-10,	6 p. c. certif.	August
	Reg.	Coup.	5's, 1864.	8 years.	1 year.	demand
February 5,.....	88	89	76½	..	..	..
" 19,.....	90	90	79	99	..	..
March 1,.....	93½	92½	85½	99½	..	2½
" 13,.....	93	93	86	100	..	..
" 19,.....	94	94	88	100	..	1½
" 26,.....	94½	94½	87½	100	97	1½

		6 th , 1861.		5 th , 1874.	7 3-10, 3 years.	6 p. c. certif. 1 year.	August demand notes.	
		Reg.	Coup.				Gold.	par.
April	1,.....	98	98	87	99 $\frac{1}{2}$	96 $\frac{1}{2}$	2 $\frac{1}{2}$	..
"	7,.....	98 $\frac{1}{2}$	98 $\frac{1}{2}$	87	100	97	1 $\frac{1}{2}$	..
"	30,.....	97 $\frac{1}{2}$	98 $\frac{1}{2}$	89 $\frac{1}{2}$	102 $\frac{1}{2}$	99 $\frac{1}{2}$	2 $\frac{1}{2}$	par.
May	10,.....	103 $\frac{1}{2}$	103	94	104	99 $\frac{1}{2}$	2 $\frac{1}{2}$	$\frac{1}{2}$
"	17,.....	105	105	96	105	100 $\frac{1}{2}$	3	$\frac{1}{2}$
"	23,.....	104 $\frac{1}{2}$	104 $\frac{1}{2}$	96	105	100 $\frac{1}{2}$	3 $\frac{1}{2}$	$\frac{1}{2}$
"	31,.....	104 $\frac{1}{2}$	104 $\frac{1}{2}$	96	105	100	3 $\frac{1}{2}$	$\frac{1}{2}$
June	7,.....	103	106	96	106 $\frac{1}{2}$	100 $\frac{1}{2}$	4 $\frac{1}{2}$	1
"	14,.....	103 $\frac{1}{2}$	107 $\frac{1}{2}$	97 $\frac{1}{2}$	106 $\frac{1}{2}$	100 $\frac{1}{2}$	6 $\frac{1}{2}$	3
"	26,.....	102 $\frac{1}{2}$	106 $\frac{1}{2}$	96 $\frac{1}{2}$	105 $\frac{1}{2}$	99 $\frac{1}{2}$	9	4 $\frac{1}{2}$
July	5,.....	100 $\frac{1}{2}$	100 $\frac{1}{2}$	95	102	98 $\frac{1}{2}$	10	5 $\frac{1}{2}$
"	12,.....	100	100 $\frac{1}{2}$	88	103	99	17	7 $\frac{1}{2}$
"	19,.....	98	98	85	101 $\frac{1}{2}$	97 $\frac{1}{2}$	19	8

The quotation for the registered stock, July 5, was ex-dividend. The highest point touched by the stocks was July 14, from which time the first issue of government paper ceased to act upon the markets, and the disaster before Richmond had a serious influence upon the government credit. It was also the case that a considerable quantity of stocks came back from Europe for sale, and these, pressed upon the market, depressed the general range of prices, while they enhanced the outward flow of specie. Following the rise in specie, the August demand notes, or those receivable for duties, rose also in value nearly 8 per cent premium. Silver also disappeared from the channels of circulation. The fractions of the dollar under the coinage bill of 1852 are about 8 per cent less in value than the silver dollar. This difference in value was designed to keep the silver fractions from going out of the country, and under this law about \$50,000,000 of those fractions have been coined, of which about \$20,000,000 are estimated to be at the South. It follows that about \$30,000,000 were in circulation at the North, when, by the suspension of the banks, coin ceased to be a circulating medium and rose in value, apparently, for the currency. The fact is, that a depreciation of the paper currency took place, as well in relation to silver as gold, and the metallic medium disappeared. To meet this difficulty, individuals emitted small evidences of debt to be received in the way of trade. This process in 1837, at the time of the former suspension of the banks, having given rise to much inconvenience, the Legislature of New York passed a law prohibiting, under severe penalties, the utterance of such paper, and Congress, at the request of the Secretary of the Treasury, authorized the use of postage and other stamps as currency. These are of denominations from 1 cent to 5, and of the multiples of 5 up to 70 cents. They are issued by the Assistant Treasury on application for United States notes, and to be redeemed for them in sums of \$5. They are not a legal tender, but are receivable for United States dues. They are not gummed, and are in such form that they cannot be attached to letters or other mailable matter. Such stamps will be exchanged by postmasters for the regular postage stamps, besides being redeemable in treasury notes by Assistant Treasurers. No postage stamps can be thus exchanged at post-offices or redeemed by the Treasury Department unless furnished through the agencies of that department.

The error in the issue, after issuing them at all, was calling them postage stamps, when they are not. They should have been in form of government bonds for one cent and upwards. The designating them stamps is a

mere delusion. It is supposed that the issue will reach an amount at least equal to the silver coin, \$30,000,000, but will probably be much more. The effect of the issue will be to drive all coin entirely out of circulation, and out of the country. Thus, the whole currency of the country is now government paper, from one cent up to thousands of dollars, with very little limit to the issue. The old issues of notes are \$150,000,000; the new issues \$150,000,000; and the stamp issues may reach \$50,000,000. The government holds deposits, payable at call, for \$50,000,000, but as these must be paid with the new notes they are not an additional issue. The circulating paper now authorized is \$350,000,000, and the appropriations of Congress up to the close of the next year \$1,281,201,000. Of this sum, nearly \$580,000,000 is for the army alone, for the fiscal year 1853, and the six per cent stock of the government is at two per cent discount for paper, which is depreciated twenty per cent as compared with gold, and yet the interest on this stock is payable in gold. Thus, August 19, falls due \$1,875,000 interest on 7.30 three year bonds, held by the banks. At the price of gold of to-day the government must pay 20 per cent for it, which will make the interest amount to \$2,250,000, or 9 per cent in paper. This discrepancy between gold and paper cannot but increase as the government paper is paid out, and the pressure upon the government threatens to become more severe from this cause, without apparently helping the government credit, since, as compared with State stocks, it is depreciated 25 per cent.

Hitherto, the government has been without available revenue; since, although the duties received under the tariff have been large, they have been payable in demand notes that are not reissuable. The new tax law authorized by Congress will go into operation September 1st, and will, to some extent, become immediately available. The taxes upon all those transactions payable by stamps will draw into the Treasury a large amount of money, in the shape of government paper, to be reissued. The excise law, however, repeals the direct tax of \$20,000,000 levied last year, and which the States offset against their advances to troops, so that no revenue is to come from that source. The tax law goes into operation September 1st, and will affect business transactions, therefore, to some extent, and will operate in an *ad valorem* manner, increasing the revenue of the government in proportion to the depreciation of the circulating medium. Hitherto general prices have not been much affected by the paper. Gold and exchange were the first to feel it. The process of inflation may be said now, however, to have fairly commenced. Most imported goods have risen in proportion to the rise of exchange and gold. In other words, the depreciation of the currency has become as manifest in merchandise as in bills. In domestic manufactures the advance is also stimulated by the scarcity of cotton. Brown sheetings have risen during the month from 15 to 25 cents, and other fabrics in proportion, while raw cotton has advanced to 50 cents per pound. Many imported dry goods have risen 50 per cent, and in turn, domestic produce, although with large supplies, has risen in value. Flour was \$1 per barrel higher at the close than at the beginning of the month, and it is probable that the paper inflation will continue to manifest itself. Under the law of finance, which makes it impossible to increase the currency, a larger amount of paper may indeed be put out, but its value sinks in proportion, and it represents no more commodities than before.

THE NEW TARIFF BILL.

AN ACT INCREASING, TEMPORARILY, THE DUTIES ON IMPORTS, AND FOR OTHER PURPOSES.

Be it enacted, by the Senate and House of Representatives of the United States of America, in Congress assembled, That from and after the first day of August, Anne Domini eighteen hundred and sixty-two, in lieu of the duties heretofore imposed by law on the articles hereinafter mentioned there shall be levied, collected, and paid, on the goods, wares, and merchandise herein enumerated and provided for, imported from foreign countries, the following duties and rates of duty, that is to say :

SUGARS AND MOLASSES.

On syrup of sugar, or of sugar cane, or concentrated molasses, or concentrated melado, two cents per pound ; on all sugar not above number twelve, Dutch standard in color, two and one-half cents per pound ; on all sugar above number twelve, and not above number fifteen, Dutch standard in color, three cents per pound ; on all sugar above number fifteen, not stove dried, and not above number twenty, Dutch standard in color, three and one-half cents per pound ; on all stove dried refined sugar in form of loaf, lump, crushed, powdered, pulverized, or granulated, and all other sugar above number twenty, Dutch standard in color, four cents per pound : *Provided*, That the standards by which the color and grades of sugars are to be regulated shall be selected and furnished to the collectors of such ports of entry as may be necessary, by the Secretary of the Treasury, from time to time and in such manner as he may deem expedient : on sugar candy, not colored, six cents per pound ; on all other confectionary, made wholly or in part of sugar, and on sugars after being refined, when tintured, colored, or in any way adulterated, ten cents per pound ; on molasses, six cents per gallon : *Provided*, That all syrups of sugar or sugar cane, concentrated molasses, or concentrated melado, entered under the name of molasses, or any other name than syrup of sugar, or of sugar cane, concentrated molasses, or concentrated melado, shall be liable to forfeiture to the United States, and the same shall be forfeited.

CIGARS AND TOBACCO.

On cigars of all kinds, valued at five dollars or less per thousand, thirty-five cents per pound ; valued at over five dollars and not over ten dollars per thousand, sixty cents per pound ; valued at over ten and not over twenty dollars per thousand, eighty cents per pound ; valued at over twenty dollars per thousand, one dollar per pound ; and in addition thereto on all cigars valued at over ten dollars per thousand, ten per centum *ad valorem* : *Provided*, That paper cigars, or cigarettes, including wrappers, shall be subject to the same duties imposed on cigars ; on snuff, thirty-five cents per pound ; on tobacco, in leaf, unmanufactured and not stemmed, twenty-five cents per pound ; on stemmed, and tobacco manufactured, of all descriptions, not otherwise provided for, thirty-five cents per pound.

SPIRITS AND WINES.

SEC. 2. *And be it further enacted*, That from and after the day and year aforesaid, in addition to the duties heretofore imposed by law, on the articles hereinafter mentioned, and included in this section, there shall be levied, collected, and paid on the goods, wares, and merchandise herein enumerated and provided for, imported from foreign countries, the following duties and rates of duty, that is to say : On brandy, for first proof, twenty-five cents per gallon ; on other spirits, manufactured or distilled from grain or other materials, for first proof, fifty cents per gallon.

CORDIALS.

On cordials, and liquors of all kinds, and arrack, absynthe, kirschenwasser, ratafia, and other similar spirituous beverages, not otherwise provided for, twenty-five cents per gallon ; on bay rum, twenty-five cents per gallon ; on ale, porter, and beer, in bottles, or otherwise, five cents per gallon ; on all spirituous liquors not otherwise enumerated, sixteen and two-thirds per centum *ad valorem* : *Provided*, That no lower rate or amount of duty shall be levied, collected, and paid, on brandy, spirits, and all other spirituous beverages, than that fixed by law for the description of first proof, but shall be increased in proportion for any greater strength than the strength of first proof : *And provided, further*, That bottles containing wines subject to *ad valorem* duties shall be liable to and pay the same rate of duty as that fixed upon the wines therein contained.

METAL AND METAL GOODS.

SEC. 3. *And be it further enacted*, That from and after the day and year aforesaid, in addition to the duties heretofore imposed by law on the articles hereinafter mentioned and included in this section, there shall be levied, collected, and paid, on the goods, wares, and merchandise, herein enumerated and provided for, imported from foreign countries, the following duties and rates of duty, that is to say :

BAR IRON.

On bar iron, rolled or hammered, comprising flats not less than one inch or more than seven inches wide, nor less than one-quarter of an inch or more than two inches thick ; rounds not less than one-half an inch nor more than four inches in diameter, and squares not less than one-half an inch nor more than four inches square, not exceeding in value the sum of fifty dollars per ton, two dollars per ton ; exceeding in value the sum of fifty dollars per ton, three dollars per ton ; on bar iron, rolled or hammered comprising flats less than one-quarter of an inch thick or more than seven inches wide, rounds less than one-half an inch or more than four inches in diameter, and squares less than one-half an inch or more than four inches square, five dollars per ton ; on all iron imported in bars, for railroads and inclined planes, made to patterns and fitted to be laid down on such roads or planes without further manufacture, one dollar and fifty cents per ton.

PLATE IRON.

On boiler plate iron, five dollars per ton.

WIRE.

On iron wire, drawn and finished, not more than one-fourth of an inch

in diameter, nor less than number sixteen, wire gauge, one dollar per one hundred pounds; over number sixteen and not over number twenty-five, wire gauge, one dollar and fifty cents per one hundred pounds; over or finer than number twenty-five, wire gauge, two dollars per one hundred pounds.

MISCELLANEOUS IRON.

On hollow-ware, glazed or tinned, one-half cent per pound. On sadirons, tailors' and hatters' irons, stoves, and stove plates, one-fourth of one cent per pound; on band and hoop iron, and slit rods, and all other descriptions of rolled or hammered iron, not otherwise provided for, five dollars per ton; on cut nails and spikes, one-fourth of one cent per pound; on iron cables, or cable chains, or parts thereof, seventy-five cents per one hundred pounds: *Provided*, That no chains made of wire or rods of a diameter less than one-half of one inch shall be considered a chain cable; on anvils, seventy-five cents per one hundred pounds; on anchors or parts thereof, fifty cents per one hundred pounds; on wrought board nails, spikes, rivets, bolts, bed-screws, and wrought hinges, one-fourth of one cent per pound.

CHAINS, ETC.

On chains, trace chains, halter chains, and fence chains, made of wire or rods, not under one-fourth of one inch in diameter, one-fourth of one cent per pound; under one-fourth of one inch in diameter, and not under number nine wire gauge, one-half of one cent per pound; under number nine, wire gauge, five per centum *ad valorem*; on blacksmith's hammers, and sledges, and axes, or parts thereof, one-half of one cent per pound; on horseshoe nails, one cent per pound; on steam, gas, and water tubes, and flues of wrought iron, one-fourth of one cent per pound; on wrought iron railroad chairs, and wrought iron nuts and washers, ready punched, five dollars per ton; on smooth or polished sheet iron, by whatever name designated, one-half cent per pound.

SHEET IRON.

On sheet iron, common or black, not thinner than number twenty, wire gauge, three dollars per ton; thinner than number twenty, and not thinner than number twenty-five, wire gauge, four dollars per ton; thinner than number twenty-five, wire gauge, five dollars per ton.

TIN AND TIN PLATES.

On tin plates galvanized, galvanized iron, or iron coated with any metal by electric batteries, one-half cent per pound; on locomotive tire, or parts thereof, one cent per pound; on mill-irons, and mill-cranks of wrought irons and wrought iron for ships, steam-engines, and locomotives, or parts thereof, weighing each twenty-five pounds or more, one-fourth of one cent per pound; on screws, commonly called wood screws, one cent and a half per pound; on screws, washed or plated, and all other screws of iron, except wood screws, five per centum *ad valorem*; on all manufactures of iron, not otherwise provided for, five per centum *ad valorem*.

CAST IRON.

On cast iron, steam, gas, and water pipes, twenty-five cents per one hundred pounds; on all other castings of iron, not otherwise provided for, nor exempted from duty, five per centum *ad valorem*: *Provided*, That the fol-

lowing descriptions of iron, manufactures of iron, and manufactures of steel, shall not be subject to any additional duty or rates of duty under the provisions of this act, that is to say: iron in pigs, cast iron butts and hinges, old scrap iron, malleable iron, and malleable iron castings, not otherwise provided for, cut tacks, brads, and sprigs, cross-cut, mill, pit, and drag saws.

STEEL.

On steel in ingots, bars, sheets, or wire, not less than one-fourth of an inch in diameter, valued at seven cents per pound or less, one-fourth of one cent per pound; valued at above seven cents per pound, and not above eleven cents per pound, one-half cent per pound; valued above eleven cents per pound, and on steel-wire and steel in any form, not otherwise provided for, five per centum *ad valorem*; on skates valued at twenty cents or less per pair, two cents per pair; when valued at over twenty cents per pair, five per centum *ad valorem*; on iron squares, marked on one side, two cents and a half per pound; on all other squares made of iron or steel, five cents per pound; on files, rasps, and floats, of all descriptions, two cents per pound, and, in addition thereto, five per centum *ad valorem*; on all manufactures of steel, or of which steel shall be a component part, not otherwise provided for, five per centum *ad valorem*: *Provided*, That no allowance or reduction of duties for partial loss or damage shall be hereafter made in consequence of rust of iron or steel, or upon the manufactures of iron or steel.

COAL.

On bituminous coal, ten cents per ton of twenty-eight bushels, eighty pounds to the bushel; on all other coal, ten cents per ton of twenty-eight bushels, eighty pounds to the bushel; on coke and culm of coal, five per centum *ad valorem*.

SEC. 4. *And be it further enacted*, That from and after the day and year aforesaid, in addition to the duties heretofore imposed by law on the articles hereinafter mentioned and included in this section, there shall be levied, collected, and paid on the goods, wares, and merchandise herein enumerated and provided for, imported from foreign countries, the following duties and rates of duty, that is to say:

COPPER.

On copper rods, bolts, nails, spikes, copper bottoms, copper in sheets or plates, called brazier's copper, and other sheets and manufactures of copper, not otherwise provided for, five per centum *ad valorem*.

ZINC, SPELTER, ETC.

On zinc, spelter, and teutenegue, unmanufactured, in blocks or pigs, twenty-five cents per one hundred pounds; on zinc, spelter, and teutenegue, in sheets, one-half of one cent per pound.

LEAD.

On lead, in pipes and shot, three-fourths of one cent per pound; on brass, in bars or pigs, and old brass, fit only to be remanufactured, five per centum *ad valorem*.

SEC. 5. *And be it further enacted*, That from and after the day and year aforesaid, in lieu of the duties heretofore imposed by law on the articles hereinafter mentioned, and on such as may now be exempt from duty, there

shall be levied, collected, and paid on the goods, wares, and merchandises enumerated and provided for in this section, imported from foreign countries, the following duties and rates of duty, that is to say :

DRUGS, DYES, ETC.

Acid, boracic, five cents per pound ; citric, ten cents per pound ; oxalic four cents per pound ; sulphuric, one cent per pound ; tartaric, twenty cents per pound ; gallic, fifty cents per pound ; tannic, twenty-five cents per pound ; alum, patent alum, alum substitute, sulphate of alumina, and aluminous cake, sixty cents per one hundred pounds ; argols, or crude tartar, six cents per pound ; cream tartar, ten cents per pound ; asphaltum, three cents per pound ; balsam copavia, twenty cents per pound ; Peruvian, fifty cents per pound ; tolu, thirty cents per pound ; blanc fixe, enamelled white, satin white, or any combination of barytes and acid, two cents and a half per pound ; barytes and sulphate of barytes, five mills per pound ; burning fluid, fifty cents per gallon ; bitter apples, colocynth, or colocintida, ten cents per pound ; borax, crude, or tincal, five cents per pound ; refined, ten cents per pound ; borate of lime, five cents per pound ; buchu leaves, ten cents per pound ; camphor, crude, thirty cents per pound ; refined, forty cents per pound ; cantharides, fifty cents per pound ; cloves, fifteen cents per pound ; cassia, fifteen cents per pound ; cassia buds, twenty cents per pound ; cinnamon, 25 cents per pound ; cayenne pepper, 12 cents per pound ; ground, 15 cents per pound ; black pepper, 12 cents per pound ; ground, 15 cents per pound ; white pepper, 12 cents per pound ; ground, 15 cents per pound ; cocculus indicus ten cents per pound ; cuttlefish, bone, five cents per pound ; cubebs, ten cents per pound ; dragon's blood, ten cents per pound ; emery, ore or rock, six dollars per ton ; manufactured, ground, or pulverized, one cent per pound ; ergot, twenty cents per pound ; epsom salts, one cent per pound ; glauber salts, five mills per pound ; rochelle salts, fifteen cents per pound ; fruit ethers, essences or oils of apple, pear, peach, apricot, strawberry, and raspberry, made of fusil oil or of fruit, or imitations thereof, two dollars and fifty cents per pound ; French green, Paris green, mineral green, carmine lake, wood lake, dry carmine, Venetian red, vermillon, mineral blue, Prussian blue, chrome yellow, rose pink, extract of rosin, or analine colors, Dutch pink, and paints and painters' colors, (except white and red lead and oxide of zinc,) dry or ground in oil, and moist water colors, used in the manufacture of paper hangings and colored papers and cards, not otherwise provided for, twenty-five per centum *ad valorem* ; ginger root, ten cents per pound ; ginger, ground, fifteen cents per pound ; on gold leaf, one dollar and fifty cents per package of five hundred leaves ; on silver leaf, seventy-five cents per package of five hundred leaves ; gum aloes, six cents per pound ; benzoin, ten cents per pound ; sandarac, ten cents per pound ; shellac, ten cents per pound ; mastic, fifty cents per pound ; copal, kowie, damar, and all gums used for like purposes, ten cents per pound ; honey, fifteen cents per gallon ; iodine, crude, fifty cents per pound ; resublimed, seventy-five cents per pound ; ipecacuanha, or ipecac, fifty cents per pound ; jalap, fifty cents per pound ; licorice root, one cent per pound ; paste or juice, five cents per pound ; litharge, two and one-fourth cents per pound ; magnesia, carbonate, six cents per pound ; calcined, twelve cents per pound ; manna, twenty-five cents per pound ; nitrate of soda, one cent per pound ; morphine and its salts, two dollars per ounce ; mace and nutmeg, thirty cents per pound ; ochres and ochrey earths, not otherwise pro-

vided for, when dry, fifty cents per one hundred pounds; when ground in oil, one dollar and fifty cents per one hundred pounds; oils, fixed or expressed, croton, fifty cents per pound; almonds, ten cents per pound; bay or laurel, twenty cents per pound; castor, fifty cents per gallon; mace, fifty cents per pound; olive, not salad, twenty-five cents per gallon; salad, fifty cents per gallon; mustard, not salad, twenty-five cents per gallon; salad, fifty cents per gallon; oils, essential or essence, anise, fifty cents per pound; almonds, one dollar and fifty cents per pound; amber, crude, ten cents per pound; rectified, twenty cents per pound; bay leaves, seventeen dollars and fifty cents per pound; bergamot, one dollar per pound; cajeput, twenty-five cents per pound; caraway, fifty cents per pound; cassia, one dollar per pound; cinnamon, two dollars per pound; cloves, one dollar per pound; citronella, fifty cents per pound; cognac or cœnanthic ether, two dollars per ounce; cubebs, one dollar per pound; fennel, fifty cents per pound; juniper, twenty-five cents per pound; lemons, fifty cents per pound; orange, fifty cents per pound; origanum or red thyme, twenty-five cents per pound; roses, or otto, one dollar and fifty cents per ounce; thyme, white, thirty cents per pound; valerian, one dollar and fifty cents per pound; all other essential oils, not otherwise provided for, fifty per centum *ad valorem*; opium, two dollars per pound; paraffine, ten cents per pound; Paris white, when dry, sixty cents per one hundred pounds; when ground in oil, one dollar and fifty cents per one hundred pounds; pimento, twelve cents per pound; when ground, fifteen cents per pound; potash, bichromate, three cents per pound; hydriodate, iodate, iodide, and acetate, seventy-five cents per pound; prussiate, yellow, five cents per pound; prussiate, red, ten cents per pound; chlorate, six cents per pound; petroleum and coal illuminating oil, crude, ten cents per gallon; refined, or kerosene, produced from the distillation of coal, asphaltum, shale, peat, petroleum, or rock oil, or other bituminous substances, used for like purposes, twenty cents per gallon; putty, one dollar and fifty cents per one hundred pounds; quinine, sulphate of and other salts of quinine, forty-five per centum *ad valorem*; rhubarb, fifty cents per pound; rose leaves, fifty cents per pound; rum, essence or oil, and bay rum, essence or oil, two dollars per ounce; saltpetre, or nitrate of potash, crude, two cents per pound; refined, three cents per pound; seeds—*anise*, five cents per pound; *star anise*, ten cents per pound; *canary*, one dollar per bushel of sixty pounds; *caraway*, three cents per pound; *cardamom*, fifty cents per pound; *cumin*, five cents per pound; *coriander*, three cents per pound; *fennel*, two cents per pound; *fenugreek*, two cents per pound; *hemp*, one-half cent per pound; *mustard*, brown, three cents per pound; *white*, three cents per pound; *rape*, one cent per pound; *castor seeds* or *beans*, thirty-five cents per bushel; *sugar of lead*, four cents per pound; *tartar emetic*, fifteen cents per pound; *varnish*, valued at one dollar and fifty cents or less per gallon, fifty cents per gallon, and twenty per centum *ad valorem*; valued at above one dollar and fifty cents per gallon, fifty cents per gallon, and twenty-five per centum *ad valorem*; *vanilla beans*, three dollars per pound; *verdigris*, six cents per pound; *whiting*, when dry, fifty cents per one hundred pounds; when ground in oil, one dollar and fifty cents per one hundred pounds; *acetous*, *benzoic*, *muriatic*, and *pyroligneous acids*, *cutch* or *catechu*, *orchil* and *cudbear*, *safflower* and *sumac*, ten per centum *ad valorem*; *arsenic* in all forms, *ammonia* and *sulphate*, and *carbonate of ammonia*, *bark cinchona*, *Peruvian*, *Lima*, *Calisays*, *quilla*, and all other medicinal barks, flowers, leaves, plants, roots, and seeds, not

otherwise provided for; cobalt and oxide of cobalt; quassia wood; smalts; sarsaparilla; tapioca; tonqua beans and sponges, acetic acid twenty-five per centum *ad valorem*; santonin and glycerine, thirty per centum *ad valorem*; on all pills, powders, tinctures, troches or lozenges, syrups, cordials, bitters, anodynes, tonics, plasters, liniments, salves, ointments, pastes, drops, waters, essences, spirits, oils, or other medicinal preparations or compositions recommended to the public as proprietary medicines, or prepared according to some private formula or secret art, as remedies or specifics for any disease or affections whatever affecting the human or animal body, fifty per centum *ad valorem*; on all essences, extracts, toilet waters, cosmetics, hair oils, pomades, hair dressings, hair restoratives, hair dyes, tooth washes, dentifrices, tooth pastes, aromatic cachous, or other perfumeries or cosmetics, by whatsoever name or names known, used or applied as perfumes or applications to the hair, mouth, or skin, fifty per centum *ad valorem*.

SEC. 6. *And be it further enacted*, That from and after the day and year aforesaid, in addition to the duties heretofore imposed by law on the articles hereinafter mentioned, and on such as may now be exempt from duty, there shall be levied, collected, and paid, on the goods, wares, and merchandise enumerated and provided for in this section, imported from foreign countries, a duty of ten per centum *ad valorem*, that is to say: antimony, crude, assafoetida, beeswax, blacking of all descriptions, building stone of all descriptions, not otherwise provided for, calomel, catsup, civet, oil of, cobalt ores, extract of indigo, extract of madder, extract and decoctions of logwood, and other dyewoods; flints, and flint, ground; flocks, waste or shoddy; furs, dressed, when not on the skin; garancine; ginger, preserved or pickled, green turtle, grindstones, unwrought, or wrought, or finished, gutta percha, unmanufactured, isinglass or fish glue, japanned ware of all kinds, not otherwise provided for; lastings, mohair cloth, silk, twist, or other manufacture of cloth, woven or made in patterns of such size, shape, and form, or cut in such manner as to be fit for shoes, slippers, boots, bootees, gaiters, and buttons, exclusively, not combined with India rubber; mats of cocoa nut; matting—china and other floor matting, and mats made of flags, jute, or grass; manufactures of gutta-percha; milk of India rubber; medicinal preparations not otherwise provided for; music, printed with lines, bound or unbound; musical instruments of all kinds, and strings for musical instruments of whipgut or catgut, and all other strings of the same material; nickel; osier or willow, prepared for basket makers' use; philosophical apparatus and instruments; plaster of Paris, when ground; quills; strychnine; staves for pipes, hogsheds, or other casks, teeth, manufactured; thread lace and insertings; woolen listings.

SEC. 7. *And be it further enacted*, That, in addition to the duties heretofore imposed by law on the articles hereinafter mentioned and provided for in this section, there shall be levied, collected, and paid, on the goods, wares, and merchandise herein enumerated, imported from foreign countries, the following duties and rates of duty, that is to say: On chocolate and cocoa prepared, one cent per pound; on copperas, green vitriol, or sulphate of iron, one-fourth cent per pound; on linseed, flax-seed, hemp-seed, and rapeseed oil, three cents per gallon; on saleratus and bicarbonate of soda, one-half cent per pound; on caustic soda, one-half cent per pound.

SALT.

On salt, in sacks, barrels, other packages, or in bulk, six cents per one

hundred pounds; on soap, fancy, scented, honey, cream transparent, and all descriptions of toilet and shaving soap, two cents per pound; all other soap, five per centum *ad valorem*; on spirits of turpentine, five cents per gallon; on starch of all descriptions, one-half cent per pound; on white and red lead and oxide of zinc, dry or ground in oil, fifteen cents per one hundred pounds.

SEC. 8. *And be it further enacted*, That from and after the day and year aforesaid, in lieu of the duties heretofore imposed by law on the articles hereinafter mentioned, and on such as may now be exempt from duty, there shall be levied, collected, and paid on the goods, wares, and merchandise enumerated and provided for in this section, imported from foreign countries, the following duties and rates of duty, that is to say: On anchovies, preserved in salt, thirty per centum *ad valorem*; on andirons, made of cast iron, one cent and one-fourth per pound; on barley, pearl or hulled, one cent per pound.

BONNETS, ETC.

On bonnets, hats, and hoods for men, women, and children, composed of straw, chip, grass, palm leaf, willow, or any other vegetable substance, or of silk, hair, whalebone, or other material, not otherwise provided for, forty per centum *ad valorem*; on braids, plaits, flats, laces, trimmings, sparterre, tissues, willow sheets and squares used for making and ornamenting hats, bonnets, and hoods, composed of straw, chip, grass, palm leaf, willow, or any other vegetable substance, or of hair, whalebone, or other material, not otherwise provided for, thirty per centum *ad valorem*.

BOOKS AND PERIODICALS.

On books, periodicals, pamphlets, blank books, bound or unbound, and all printed matter, engravings, bound or unbound, illustrated books and papers, and maps and charts, twenty per centum *ad valorem*; on bristles, ten cents per pound; on candles and tapers, stearine and adamantine, five cents per pound; on spermaceti, paraffine and wax candles and tapers, pure or mixed, eight cents per pound; on all other candles and tapers, two and one-half cents per pound; on chicory root, two cents per pound; on chicory ground, burnt, or prepared, three cents per pound; on acorn coffee and dandelion root, raw or prepared, and all other articles used, or intended to be used as coffee, or a substitute for coffee, and not otherwise provided for, three cents per pound; on coloring for brandy, fifty per centum *ad valorem*; on cork wood unmanufactured, thirty per centum *ad valorem*; on corks, fifty per centum *ad valorem*; on cotton, one-half cent per pound.

FEATHERS.

On feathers and downs for beds or bedding, of all descriptions thirty per centum *ad valorem*; on ostrich, vulture, cock, and other ornamental feathers, crude, or not dressed, colored, or manufactured, twenty per centum *ad valorem*; when dressed, colored, or manufactured, forty per centum *ad valorem*; on feathers and flowers, artificial and parts thereof, of whatever material composed, not otherwise provided for, forty per centum *ad valorem*; on fire crackers, fifty cents per box of forty pucks, not exceeding eighty to each pack, and in the same proportion for a greater number; on fruit, shade, lawn and ornamental trees, shrubs, plants, and bulbous roots, and flower seeds, not otherwise provided for, thirty per centum *ad valorem*; on gloves, made of skins or leather, forty per centum *ad valorem*; on gun-

powder and all explosive substances used for mining, blasting, artillery, or sporting purposes, valued at less than twenty cents per pound, six cents per pound; valued at twenty cents or over per pound, six cents per pound, and twenty per centum ad valorem in addition thereto; on garden seeds, and all other seeds for agricultural and horticultural purposes, not otherwise provided for, thirty per centum ad valorem; on hides, raw, and skins of all kinds, whether dried, salted, or pickled, ten per centum ad valorem; on hollow ware and vessels of cast iron, not otherwise provided for, one cent and one-fourth per pound; on hops, five cents per pound; on human hair, raw, uncleaned, and not drawn, twenty per centum ad valorem; when cleaned or drawn, but not manufactured, thirty per centum ad valorem; when manufactured, forty per centum ad valorem; on lead ore seventy-five cents per one hundred pounds; on marble, white statuary, in block, rough or squared, seventy-five cents per cubic foot; veined marble, and marble of all other descriptions, not otherwise provided for, in block, rough or squared, forty per centum ad valorem; on all manufactures of marble slabs, marble paving tiles, and marble sawed, dressed or polished, fifty per centum ad valorem; on manufactures of bladders, thirty per centum ad valorem; on manufactures of India rubber and silk or of India rubber and silk and other materials, fifty per centum ad valorem; on mustard, ground, in bulk, twelve cents per pound; when enclosed in glass or tin, sixteen cents per pound; on plates engraved, of steel, copper, wood, or any other material, twenty-five per centum ad valorem; on plumbago or black lead, ten dollars per ton; on potatoes, twenty-five cents per bushel; on percussion caps, fulminates, fulminating powders, and all articles used for like purposes, not otherwise provided for, thirty per centum ad valorem; on playing cards, valued at twenty-five cents or less per pack, fifteen cents per pack; valued at above twenty-five cents per pack, twenty-five cents per pack; on pens, metallic, ten cents per gross; on pen-holder tips, metallic, ten cents per gross; on penholders, complete, ten cents per dozen; on rice, cleaned, one cent and a half per pound; paddy, three quarters of a cent per pound; on uncleaned rice, one cent per pound; on seago, and seago flour, one cent and a half per pound; on lead pencils, one dollar per gross.

COPPER AND TIN.

On sheathing copper, and sheathing metal or yellow metal not wholly of copper nor wholly or in part of iron, ungalvanized, in sheets forty-eight inches long and fourteen inches wide, and weighing from fourteen to thirty-four ounces per square foot, three cents per pound; on tin in pigs, bars, or blocks, fifteen per centum ad valorem; on tin in plates or sheets, and tagger tin, twenty-five per centum ad valorem; on oxide, muriatic, and salts of tin, and tin foil, thirty per centum ad valorem.

SEC. 9. *And be it further enacted*, That in addition to the duties heretofore imposed by law on the articles hereinafter mentioned and included in this section, there shall be levied, collected and paid on the goods, wares and merchandise herein enumerated and provided for, imported from foreign countries, the following duties and rates of duty, that is to say: On Wilton, Saxony and Aubusson, Axminster, patent velvet, Tourmay velvet, and tapestry velvet carpets and carpeting, Brussels carpets, wrought by the Jacquard machine, and all medallion or whole carpets, five cents per square yard; on Brussels and tapestry Brussels carpets and carpeting, printed on the warp or otherwise, three cents per square yard; on all treble

ingrain and worsted chain Venetian carpets and carpeting, three cents per square yard ; on hemp or jute carpeting, two cents per square yard ; on all other kinds of carpets and carpeting, of wool, flax, or cotton, or parts of either or other material (except druggets, bockings, and felt carpets and carpetings) not otherwise provided for, five per centum ad valorem : *Provided*, That mats, rugs, screens, covers, hassocks, bedsides, and other portions of carpets or carpeting, shall pay the rate of duty herein imposed on carpets and carpeting of similar character ; on all other mats, screens, hassocks and rugs, five per centum ad valorem ; on woolen cloths, woolen shawls, and all manufactures of wool, of every description, made wholly or in part of wool, not otherwise provided for, a duty of six cents per pound, and in addition thereto, five per centum ad valorem ; on goods of like description, when valued at over one dollar per square yard, or weighing less than twelve ounces per square yard, a duty of six cents per pound, and, in addition thereto, ten per centum ad valorem ; on endless belts or belts for paper, and blanketing for printing materials, five per centum ad valorem ; on flannels of all descriptions, five per centum ad valorem ; on hats of wool, ten per centum ad valorem ; on woolen and worsted yarn of all descriptions, five per centum ad valorem ; on clothing ready made, and wearing apparel of every description, composed wholly or in part of wool, made up or manufactured wholly or in part by the tailor, seamstress, or manufacturer, six cents per pound, and in addition thereto, five per centum ad valorem : *Provided*, That Balmoral skirts, or goods of like description, or used for like purposes, made wholly or in part of wool, shall be subjected to the same duties that are levied upon ready made clothing ; on blankets of all kinds, made wholly or in part of wool, five per centum ad valorem ; on all delaines, cashmere delaines, muslin delaines, barege delaines, composed wholly or in part of worsted wool, mohair or goat's hair, and on all goods of similar description, not exceeding in value forty cents per square yard, two cents per square yard ; on bunting, worsted yarns, and on all other manufactures of worsted or of which worsted shall be a component material, not otherwise provided for, five per centum ad valorem ; on oil-cloth for floors, stamped or printed, of all descriptions, five per centum ad valorem ; on coir floor matting and carpeting, five per centum ad valorem.

SEC. 10, *And be it further enacted*, That from and after the day and year aforesaid, in addition to the duties heretofore imposed by law on the articles hereinafter mentioned and provided for in this section, there shall be levied, collected, and paid on the goods, wares, and merchandise herein enumerated, imported from foreign countries, the following duties and rates of duty, that is to say : First, on all manufactures of cotton, bleached or unbleached, and not colored, stained, painted, or printed, and not exceeding one hundred threads to the square inch, counting the warp and filling, and exceeding in weight five ounces per square yard, one-fourth of one cent per square yard ; on finer or lighter goods of like description, not exceeding one hundred and forty threads to the square inch, counting the warp and filling, one-half cent per square yard ; on goods of like description, exceeding one hundred and forty threads and not exceeding two hundred threads to the square inch, counting the warp and filling, three fourths of one cent per square yard ; on like goods, exceeding two hundred threads to the square inch, counting the warp and filling, one cent per square yard ; on all goods embraced in the foregoing schedules, (except jeans, denims, drillings, bedtickings, gingham, plaids, cottonades, pantaloons, stuffs, and goods of

like description, not exceeding in value the sum of sixteen cents the square yard), if printed, painted, colored or stained, there shall be levied, collected, and paid, a duty of one cent per square yard, in addition to the rates of duty provided in the foregoing schedules: *Provided*, That upon all plain-woven cotton goods not included in the foregoing schedules, and upon cotton goods of every description, the value of which shall exceed sixteen cents per square yard, there shall be levied, collected, and paid, a duty of five per centum ad valorem: and provided further, That no cotton goods having more than two hundred threads to the square inch, counting the warp and filling, shall be admitted to a less rate of duty than is provided for goods which are of that number of threads.

COTTON AND LINEN GOODS.

Second. On spool and other thread of cotton, ten per centum ad valorem.

Third. On shirts and drawers, wove or made on frames, composed wholly of cotton and cotton velvet, five per centum ad valorem.

Fourth. On all cotton jeans, denims, drillings, bedtickings, gingham, plaids, cottonades, pantaloons, stuffs and goods of like description, not exceeding in value the sum of sixteen cents per square yard, two cents per square yard; and on all manufactures composed wholly of cotton, bleached, unbleached, printed, painted, or dyed, not otherwise provided for, five per centum ad valorem.

Fifth. On all brown or bleached linens, ducks, canvas, paddings, cotton-bottoms, burlaps, drills, coatings, brown hollands, blay linens, damasks, diapers, crash, huckabacks, handkerchiefs, lawns, or other manufactures of flax, jute or hemp (or of which flax, jute, or hemp shall be the component material of chief value), five per centum ad valorem; on flax or linen threads, twine and packthread, and all other manufactures of flax, or of which flax shall be the component material of chief value, and not otherwise provided for, five per centum ad valorem.

Sec. 11. *And be it further enacted*, That from and after the day and year aforesaid in addition to the duties heretofore imposed by law on the articles hereinafter mentioned and provided for in this section, there shall be levied, collected, and paid, on the goods, wares, and merchandise herein enumerated, imported from foreign countries, the following duties and rates of duty, that is to say:

HEMP, ETC.

On jute, Sisal grass, sun hemp, coir and other vegetable substances not enumerated (except flax, tow of flax, Russia and Manila hemp, and codilla, or tow of hemp), five dollars per ton; on jute butts, one dollar per ton; on tarred cables, or cordage, one-fourth of one cent per pound; on untarred Manila cordage, one-fourth of one cent per pound; on all other untarred cordage, one-half cent per pound; on hemp yarn, one cent per pound; on coir yarn, one-half cent per pound; on seines, one-half cent per pound.

BAGGING AND DUCK.

On cotton bagging, or other manufactures not otherwise provided for, suitable for the uses to which cotton bagging is applied, whether composed in whole or in part of hemp, jute, or flax, or any other material valued at less than ten cents per square yard, three-fourths of one cent per pound;

over ten cents per square yard, one cent per pound; on sail duck, five per centum ad valorem; on Russia and other sheetings, made of flax or hemp, brown and white, five per centum ad valorem; and on all other manufactures of hemp, or of which hemp shall be a component part, not otherwise provided for, five per centum ad valorem; on grass cloth, five per centum ad valorem; on jute yarns, five per centum ad valorem; on all other manufactures of jute or Sisal grass, not otherwise provided for, five per centum ad valorem: *Provided*, That all hemp or preparations of hemp, used for naval purposes by the government of the United States shall be of American growth or manufacture: *Provided further*, the same can be obtained of as good quality and at as low a price.

Sec. 12. *And be it further enacted*, That from and after that day and year aforesaid, in lieu of the duties heretofore imposed by law on the articles hereinafter mentioned, and on such as may now be exempt from duty, there shall be levied, collected, and paid, on the goods, wares and merchandise enumerated and provided for in this section, imported from foreign countries, the following duties and rates of duty, that is to say:—

EARTHEN WARE AND STONE WARE.

On all brown earthenware and common stoneware, gas retorts, stoneware not ornamented, and stoneware above the capacity of ten gallons, twenty per centum ad valorem.

CHINA AND PORCELAIN.

On china and porcelain ware, gilded, ornamented, or decorated in any manner, forty per centum ad valorem; on china and porcelain ware, plain, white, and not decorated in any manner, and all other earthen, stone, or crockery ware, white, glazed, edged, printed, painted, dipped, or cream-colored, composed of earthy or mineral substances, and not otherwise provided for, thirty-five per centum ad valorem; slates, slate pencils, slate chimney-pieces, mantels, slabs for tables, and all other manufactures of slate, forty per centum ad valorem; on unwrought clay, pipe clay, fire clay and kaoline, five dollars per ton; and fuller's earth, three dollars per ton.

CHALK.

On white chalk, four dollars per ton; on red and French chalk, ten per centum ad valorem; on chalk of all descriptions not otherwise provided for, twenty-five per centum ad valorem.

GLASSWARE.

On all plain and mould and press glassware, not cut, engraved or painted, thirty per centum ad valorem; on all articles of glass, cut, engraved, painted, colored, printed, stained, silvered or gilded, not including plate-glass silvered, or looking-glass plates, thirty-five per centum ad valorem; on fluted, rolled, or rough plate-glass, not including crown, cylinder, broad, or common window glass, not exceeding ten by fifteen inches, seventy-five cents per hundred square feet; above that, and not exceeding sixteen by twenty-four inches, one cent per square foot; above that and not exceeding twenty-four by thirty inches, one cent and a half per square foot; all above that, and not exceeding in weight one pound per square foot, two cents per square foot: *Provided*, That all fluted, rolled, or rough plate-glass, weighing over one hundred pounds per one hundred square feet, shall pay an additional duty on the excess at the same rate herein imposed.

PLATE GLASS.

On all cast polished plate glass, unsilvered, not exceeding ten by fifteen inches, three cents per square foot; above that, and not exceeding sixteen by twenty-four inches, five cents per square foot; above that, and not exceeding twenty-four by thirty inches, eight cents per square foot; above that, and not exceeding twenty-four by sixty inches, twenty-five cents per square foot; all above that, fifty cents per square foot; on all cast polished plate glass, silvered, or looking-glass plates, exceeding ten by fifteen inches, four cents per square foot; above that, and not exceeding sixteen by twenty-four inches, six cents per square foot; above that, and not exceeding twenty-four by thirty inches, ten cents per square foot; above that, and not exceeding twenty-four by sixty inches, thirty-five cents per square foot; all above that, sixty cents per square foot: *Provided*, That no looking-glass plates, or plate glass silvered, when framed, shall pay a less rate of duty than that imposed upon similar glass, of like description, not framed, but shall be liable to pay, in addition thereto, thirty per centum ad valorem upon such frames; on porcelain and Bohemian glass, glass crystals for watches, paintings on glass or glasses, pebbles for spectacles, and all manufactures of glass, or of which glass shall be a component material, except crown, cylinder, and other window glass, not otherwise provided for, and all glass bottles or jars filled with sweetmeats, preserves, thirty-five per centum ad valorem.

SEC. 13. *And be it further enacted*, That from and after the day and year aforesaid, in addition to the duties heretofore imposed by law on the articles hereinafter mentioned, there shall be levied, collected, and paid, on the goods, wares, and merchandise, enumerated and provided for in this section, imported from foreign countries, a duty of five per centum ad valorem, that is to say:—

MISCELLANEOUS MANUFACTURE.

Argentine, alabaster, or German silver, manufactured or unmanufactured; articles embroidered with gold, silver, or other metal; articles worn by men, women, or children, of whatever material composed, made up, or made wholly or in part by hand, not otherwise provided for; Britannia ware, baskets, and all other articles composed of grass, osier, palm leaf, straw, whalebone, or willow, not otherwise provided for; bracelets, braids, chains, curls, or ringlets composed of hair, or of which hair is a component material; braces, suspenders, webbing, or other fabrics composed wholly or in part of India rubber, not otherwise provided for; brooms and brushes of all kinds; canes and sticks for walking, finished or unfinished; capers, pickles, and sauces of all kinds, not otherwise provided for; caps, hats, muffs, and tippets of fur, and all other manufactures of fur, or of which fur shall be a component material; caps, gloves, leggins, mits, socks, stockings, wove shirts and drawers, and all similar articles made on frames, of whatever material composed, worn by men, women, and children, and not otherwise provided for, card cases, pocket books, shell boxes, souvenirs, and all similar articles, of whatever material composed; carriages and parts of carriages; clocks and parts of clocks, clothing, ready made and wearing apparel of whatever description, of whatever material composed, except wool made up or manufactured wholly or in part by the tailor, seamstress or manufacturer; coach and harness furniture of all kinds, saddlery, coach and harness hardware, silver plated, brass plated, or covered, common tinned, burnished, or

japanned, not otherwise provided for; combs of all kinds; composition of glass or paste, when set; composition tops for tables, or other articles of furniture; comfits, sweetmeats, or fruits preserved in sugar, brandy, or molasses, not otherwise provided for; cotton cords, gimps, and galloons; cotton laces, cotton insertings, cotton trimming laces, and cotton braids, colored or uncolored; court plaster; cutlery of all kinds; dolls and toys of all kinds; encaustic tiles, epaulets, galloons, laces, knots, stars, tassels, tresses, and wings, of gold, silver, and other metal; fans, and fire-screens of every description, of whatever material composed; frames and sticks for umbrellas, parasols, and sunshades, finished, or unfinished; furniture, cabinet and household; furs, dressed; hair pencils; hat bodies of cotton or wool, of which wool is the component material of chief value; hair cloth, hair seatings, and all other manufactures of hair not otherwise provided for; ink, printers' ink, and ink powder; japanned, patent or enameled leather, or skins of all kinds; jet and manufactures of jet, and imitations thereof; leather, tanned, of all descriptions; macaroni, vermicelli, galatine, jellies, and all similar preparations; manufactures of bone, shell, horn, ivory or vegetable ivory; manufactures of paper, or of which paper is a component material, not otherwise provided for; manufactures of the bark of the cork tree, except corks; manufactures, articles, vessels and wares, not otherwise provided for, of gold, silver, copper, brass, iron, steel, lead, pewter, tin, or other metal, or of which either of these metals, or any other metal shall be the component material of chief value; manufactures not otherwise provided for, composed of mixed materials, in part of cotton, silk, wool, or worsted, hemp, jute, or flax, manufactures of cotton, linen, silk, wool, or worsted, if embroidered or tamboured, in the loom or otherwise, by machinery or with the needle or other process, not otherwise provided for; manufactures of cedar wood, granadilla, ebony, mahogany, rosewood and satin wood; manufactures and articles of leather, or of which leather shall be a component part, not otherwise provided for; manufactures, articles, and wares, of papier mache; manufactures of goats' hair or mohair, or of which goats' hair or mohair shall be a component material, not otherwise provided for; manufactures of wood, or of which wood is the chief component part, not otherwise provided for; morocco skins; muskets, rifles, and other fire arms; needles, sewing, darning, knitting, and all other descriptions; oil cloth of every description, of whatever material composed, not otherwise provided for; paper boxes, and all other fancy boxes; paper envelopes; paper hangings, and paper for screens or fire-boards; paper, antiquarian, demy, drawing, elephant, foolscap, imperial letter, and all other paper, not otherwise provided for; pins, solid head or other; plated and gilt ware of all kinds; prepared vegetables, meats, fish, poultry, and game, sealed or unsealed, in cans or otherwise; ratans and reeds, manufactured or partially manufactured; roofing slates, scagliola tops for tables or other articles of furniture; sealing wax; side arms of every description; silverplated metal, in sheets or other form; stereotype plates; still bottoms; twines and packthread, of whatever material composed, not otherwise provided for; type metal; types, new; umbrellas, parasols, and sunshades; velvet, when printed or painted; wafers; water colors; watches and parts of watches, and watch materials, and unfinished parts of watches; webbing, composed of wool, cotton, flax, or any other materials not otherwise provided for.

SEC. 14. *And be it further enacted*, That from and after the day and year aforesaid, there shall be levied, collected, and paid on all goods, wares,

and merchandises, of the growth or produce of countries beyond the Cape of Good Hope, when imported from places this side of the Cape of Good Hope, a duty of ten per centum ad valorem, in addition to the duties imposed on any such articles when imported directly from the place or places of their growth or production.

SEC. 15. *And be it further enacted*, That upon all ships, vessels, or steamers, which, after the thirty-first day of December, eighteen hundred and sixty-two, shall be entered at any custom house in the United States, from any foreign port or place, or from any port or place in the United States, whether ships or vessels of the United States, or belonging wholly or in part to subjects of foreign powers, there shall be paid a tax or tonnage duty of ten cents per ton of the measurement of said vessel, in addition to any tonnage duty now imposed by law: *Provided*, That the said tax or tonnage duty shall not be collected more than once in each year on any ship, vessel or steamer having a license to trade between different districts in the United States, or to carry on the bank, whale, or other fisheries, whilst employed therein, or on any ship, vessel, or steamer, to or from any port or place in Mexico, the British provinces of North America, or any of the West India Islands: *Provided also*, That nothing in this act contained shall be deemed in any wise to impair any rights and privileges which have been or may be acquired by any foreign nation under the laws and treaties of the United States relative to the duty on tonnage of vessels: *Provided further*, That so much of the act of August eighteen, eighteen hundred and fifty-six, entitled "An act to authorize protection to be given to citizens of the United States who may discover deposits of guano," as prohibits the exports thereof, is hereby suspended for one year from and after the passage of this act.

SEC. 16. *And be it further enacted*, That from and after the passage of this act, in estimating the allowance for tare on all chests, boxes, cases, casks, bags, or other envelop or covering of all articles imported liable to pay any duty, where the original invoice is produced at the time of making entry thereof, and the tare shall be specified therein, it shall be lawful for the collector, if he shall see fit, or for the collector and naval officer, if such officer there be, if they shall see fit, with the consent of the consignees, to estimate the said tare according to such invoice, but in all other cases the real tare shall be allowed, and may be ascertained under such regulations as the Secretary of the Treasury may from time to time prescribe; but in no case shall there be any allowance for draft.

VERIFICATION OF INVOICES.

SEC. 17. *And be it further enacted*, That from and after the first day of November, eighteen hundred and sixty-two, no goods, wares, or merchandise subject to ad valorem or specific duty, whether belonging to a person or persons residing in the United States or otherwise, or whether acquired by the ordinary process of bargain and sale, or otherwise, shall be admitted to entry, unless the invoice of such goods, wares, or merchandise be verified by the oath of the owners, or one of the owners, or in the absence of the owner, one of the party who is authorised by the owner to make the shipment and sign the invoice of the same, certifying that the invoice annexed contains a true and faithful account, if subject to ad valorem duty and obtained by purchase, of the actual cost thereof and of all charges thereon, and that no discounts, bounties, or drawbacks are contained in the said invoice, but such as have

actually been allowed on the same; and when consigned or obtained in any manner other than by purchase, the actual market value thereof, and if subject to specific duty, of the actual quantity thereof; which said oath shall be administered by the consul or commercial agent of the United States in the district where the goods are manufactured, or from which they are sent; and if there be no consul or commercial agent of the United States in the said district, the verification hereby required shall be made by the consul or commercial agent of the United States at the nearest point, or at the port from which the goods are shipped, in which case the oath shall be administered by some public officer, duly authorized to administer oaths, and transmitted with a copy of the invoice to the consul or commercial agent for his authentication; and this act shall be construed only to modify, and not repeal the act of March first, eighteen hundred and twenty-three, entitled "An act supplementary to and to amend an act entitled 'An act to regulate the collection of duties on imports and tonnage,' passed second March, one thousand seven hundred and ninety-nine, and for other purposes," and the forms of the oaths therein set forth shall be modified accordingly. And there shall be paid to the said consul, vice-consul, or commercial agent, by the person or persons by or in behalf of whom the said invoices are presented and deposited, one dollar for each and every invoice verified, which shall be accounted for by the officers receiving the same, in such manner as is now required by the laws regulating the fees and salaries of consuls and commercial agents. *Provided*, That nothing herein contained shall be construed to require for goods imported under the reciprocity treaty with Great Britain, signed June fifth, eighteen hundred and fifty-four, any other consular certificate than is now required by law. And *Provided further*, That the provisions of this section shall not apply to invoices of goods, wares and merchandise imported into the United States from beyond Cape Horn and the Cape of Good Hope, until the first day of April, one thousand eight hundred and sixty-three. And *Provided further*, That the provisions of this section shall not apply to countries where there is no consul, vice-consul, or commercial agent of the United States.

Sec. 18. *And be it further enacted*, That from and after the date aforesaid it shall be the duty of consuls and commercial agents of the United States, having any knowledge or belief of any case or practice of any person or persons who obtain or should obtain verification of invoices as described in the preceding section, whereby the revenue of the United States is or may be defrauded, to report the facts to the collector of the port where the revenue is or may be defrauded, or to the Secretary of the Treasury of the United States.

Sec. 19. *And be it further enacted*, That from and after the passage of this act, the act entitled "An act to provide for the payment of outstanding treasury notes, to authorize a loan to regulate and fix the duties on imports, and for other purposes," approved March two, eighteen hundred and sixty-one, be, and the same is hereby amended as follows, that is to say: First, in section twelve, before the word "eighteen," where it first occurs, strike out "less than;" second, in section twenty-three, after the words "artists residing abroad," strike out, "provided the same be imported in good faith as objects of taste and not of merchandise," and insert *provided the fact, as aforesaid, shall be certified by the artist, or by a consul of the United States*; and in the same section, before the word "ornament," insert "ores of gold and silver."

THE WAREHOUSE SYSTEM.

SEC. 20. *And be it further enacted*, That the sixth section of an act entitled "An act to extend the warehousing system by establishing private bonded warehouses, and for other purposes," be, and the same is hereby amended so that the additional duty of one hundred per centum shall not apply to the invoice or appraised value of the merchandise withdrawn, but shall be so constructed as to require for failure to transport and deliver within the time limited a duty to be levied and collected of double the amount which said goods, wares and merchandise would be liable upon the original entry thereof.

SEC. 21. *And be it further enacted*, That all goods, wares and merchandise which may be in public stores or bonded warehouse on the first day of August, eighteen hundred and sixty-two, may be withdrawn for consumption upon the payment of the duties now imposed thereon by law; *Provided*, the same shall be so withdrawn within three months from the date of the original importation; but all goods, wares and merchandise which shall remain in the public store or bonded warehouse for more than three months from the date of the original importation, if withdrawn for consumption, and all goods on shipboard on the first day of August, eighteen hundred and sixty-two, shall be subject to the duties prescribed by this act: *Provided*, That all goods which now are or may be deposited in public store or bonded warehouse after this act takes effect and goes into operation, must be withdrawn therefrom, or the duties thereon be paid within one year from the date of the original importation, but may be withdrawn by the owner for exportation to foreign countries, or may be transshipped to any port of the Pacific, or western coast of the United States at any time before the expiration of three years from the date of the original importation, such goods on arrival at a Pacific or western port, as aforesaid, to be subject to the same rules and regulations as if originally imported there; any goods remaining in public store or bonded warehouse beyond three years shall be regarded as abandoned to the government, and sold under such regulations as the Secretary of the Treasury may prescribe, and the proceeds paid into the treasury: *Provided, further*, That merchandise upon which duties have been paid may remain in warehouse in custody of the officers of the customs at the expense and risk of the owners of said merchandise, and if exported directly from said custody to a foreign country within three years, shall be entitled to return duties, proper evidence of such merchandise having been landed abroad to be furnished to the collector by the importer, one per centum of said duties to be retained by the government: *And provided further*, That all drugs, medicines, and chemical preparations, entered for exportation and deposited in warehouse or public store, may be exported by the owner or owners thereof in the original packages, or otherwise, subject to such regulations as shall be prescribed by the Secretary of the Treasury: *And provided further*, That the third or last proviso to the fifth section of an act entitled "An act to provide increased revenue from imports, to pay interest on the public debt, and for other purposes," approved the sixth day of August, eighteen hundred and sixty-one, be, and the same is hereby repealed; and no return of the duties shall be allowed on the export of any merchandise after it has been removed from the custody and control of the government; but nothing herein contained shall be held to apply to or repeal section thirty of the act entitled "An act

to provide for the payment of outstanding treasury notes, to authorize a loan, to regulate and fix the duties on imports, and for other purposes," approved March second, eighteen hundred and sixty-one, or section four of act entitled "An act to provide increased revenue from imports, to pay interest on the public debt, and for other purposes," approved August fifth, eighteen hundred and sixty-one.

SEC. 22. *And be it further enacted*, That the privilege of purchasing supplies from the public warehouses duty free, be extended under such regulations as the Secretary of the Treasury shall prescribe, to the vessels-of-war of any nation in ports of the United States, which may reciprocate such privileges towards the vessels-of-war of the United States in their ports.

SEC. 23. *And be it further enacted*, That all acts and parts of acts repugnant to the provisions of this act be, and the same are hereby repealed: *Provided*, That the existing laws shall extend to, and be in force, for the collection of the duties imposed by this act for the prosecution and punishment of all offences, and for the recovery, collection, distribution, and remission of all fines, penalties, and forfeitures, as fully and effectually as if every regulation, penalty, forfeiture, provision, clause, matter, and thing to that effect, in the existing laws contained, had been inserted in and re-enacted by this act.

SEC. 24. *And be it further enacted*, That the ninety-fifth section of the act entitled "An act to provide internal revenue to support the government and pay interest on the public debt," approved July first, eighteen hundred and sixty-two, be so amended that no instrument, document, or paper, made, signed, or issued prior to the first day of January, eighteen hundred and sixty-three, without being duly stamped, or having thereon an adhesive stamp to denote the duty imposed thereon, shall for that cause be deemed invalid and of no effect: *Provided, however*, That no such instrument, document, or paper shall be admitted or used as evidence in any court until the same shall have been duly stamped, nor until the holder thereof shall have proved to the satisfaction of the court that he has paid to the collector or deputy collector of the district within which such court may be held, the sum of five dollars for the use of the United States.

SEC. 25. *And be it further enacted*, That no part of the act aforesaid, in relation to stamp duties, shall be held to take effect before the first day of September, eighteen hundred and sixty-two. And so much of said act as relates to the appointment of collectors and assessors shall be held to take effect on the twenty-first day of July, eighteen hundred and sixty-two, instead of from and after its approval by the President.

Approved, July 14, 1862.

JOURNAL OF INSURANCE.

1. MARINE LOSSES FOR FOUR YEARS. 2. REPORT ON MARINE INSURANCE, FOR THE YEAR 1861.
3. MARINE LOSSES FOR MAY AND JUNE.

MARINE LOSSES FOR FOUR YEARS.

COMPARATIVE NUMBER OF AMERICAN AND FOREIGN VESSELS LOST, OR PARTIALLY DAMAGED, DURING THE YEARS 1858-61, IN VOYAGES TO OR FROM UNITED STATES PORTS.

	American.				Total.	Foreign.				Grand total.
	1858.	1859.	1860.	1861.		1858.	1859.	1860.	1861.	
Steamers.....	54	82	78	87	246	8	11	10	9	33
Ships.....	281	241	218	183	868	22	58	47	47	169
Barks	143	138	160	113	552	29	58	58	68	208
Brigs	188	139	124	112	513	25	34	42	52	153
Schooners.....	311	277	292	290	1,170	9	12	23	37	81
Total.....	877	875	862	735	3,349	88	168	175	218	644

COMPARATIVE LOSSES ON SHIPS AND FREIGHTS DURING THE YEARS 1858, 1859, 1860, 1861.

	1858.	1859.	1860.	1861.	Total, four years.
January.....	\$597,550	\$1,362,700	\$1,178,300	\$1,530,100	\$4,668,650
February.....	861,660	1,230,600	1,295,000	955,300	4,342,560
March	954,350	699,400	1,537,450	1,287,700	4,428,900
April.....	767,300	642,400	783,100	778,100	2,970,900
May.....	772,800	1,197,052	946,300	1,189,300	4,105,452
June	645,850	1,413,400	613,300	658,100	3,830,650
July.....	546,000	1,975,100	749,200	572,950	3,843,250
August.....	855,800	1,140,000	493,900	459,300	2,949,000
September....	698,100	1,023,400	976,600	489,500	3,187,600
October.....	671,800	1,591,700	1,759,000	353,300	4,375,800
November.....	1,367,900	3,203,100	1,800,100	1,132,300	8,003,400
December.....	1,670,100	1,223,900	1,192,750	736,200	4,822,950
Total.....	\$10,909,210	\$16,702,752	\$13,325,000	\$10,092,150	\$51,029,112

COMPARATIVE LOSSES ON CARGOES DURING THE YEARS 1858, 1859, 1860, AND 1861.

	1858.	1859.	1860.	1861.	Total, four years.
January.....	\$347,300	\$1,419,400	\$1,659,900	\$1,400,500	\$4,827,100
February.....	435,100	1,246,700	1,114,000	1,448,700	4,244,500
March.....	1,555,100	1,159,000	1,894,500	1,410,800	6,019,400
April.....	854,400	599,560	1,430,700	839,450	3,724,110
May.....	992,200	1,193,900	1,243,500	1,636,300	5,065,900
June.....	662,900	1,042,500	859,000	265,400	2,829,800
July.....	340,460	2,252,600	1,662,000	259,550	4,614,610
August.....	584,700	1,044,150	462,400	230,100	2,321,350
September....	950,800	1,242,900	959,600	466,950	3,620,250
October.....	672,800	2,059,600	1,013,000	347,550	4,092,450
November.....	976,900	6,543,180	1,416,900	681,060	9,618,010
December.....	847,100	749,950	1,800,500	403,700	3,801,250
Total.....	\$9,219,260	\$20,553,420	\$15,016,000	\$9,490,050	\$54,278,730

STATEMENT SHOWING THE COMPARATIVE LOSSES ON VESSELS, FREIGHTS, AND CARGOES, DURING THE YEARS 1858, 1859, 1860, AND 1861, BEING THE AGGREGATES OF THE PRECEDING TWO TABLES.

	1858.	1859.	1860.	1861.	Total, four years.
January.....	\$944,850	\$2,782,100	\$2,838,200	\$2,930,600	\$9,495,750
February.....	1,296,760	2,477,300	2,409,000	2,404,000	8,587,060
March.....	2,509,450	1,858,400	3,431,950	2,648,500	10,448,300
April.....	1,621,700	1,241,960	2,213,800	1,617,550	6,695,010
May.....	1,765,000	2,390,952	2,189,200	2,825,600	9,171,852
June.....	1,308,750	2,455,900	1,472,300	923,500	6,160,450
July.....	886,460	4,227,700	2,411,200	932,500	8,457,860
August.....	1,440,500	2,184,150	956,800	689,400	5,270,850
September....	1,648,900	2,266,300	1,936,200	956,450	6,807,850
October.....	1,344,100	3,651,500	2,772,000	700,340	8,468,250
November.....	2,843,800	9,746,260	3,217,000	1,813,850	17,621,410
December.....	2,517,200	1,973,850	2,493,250	1,139,900	8,124,200
Total.....	\$20,128,470	\$37,256,172	\$28,341,000	\$19,582,200	\$105,307,842

This list embraces both partial and total losses, and includes those only in voyages to or from United States' ports during the years named. The diminished losses reported for the year 1861 are mainly the results of diminished business, owing to the Southern rebellion and the cessation of the ordinary imports and exports of the Southern States. The past year, therefore, forms no criterion of the movements and general results of a series of years; the aggregate losses in the United States trade, for the whole year, being only \$19,582,200, while the average for the preceding three years exceeded \$25,000,000.

REPORT ON MARINE INSURANCE, FOR THE YEAR 1861.

ANNUAL STATEMENT OF THE MARINE INSURANCE COMPANIES OF NEW YORK, FOR 1861.

Companies.	Premiums received during year.	Losses for the year.	Expenses, &c.	Return premium, included in expenses.	Interest on investment.	Net profits.	Interest scrip.	Int. on idend. stock &c.	Dividend.
Atlantic.....	\$3,840,286	\$4,156,165	\$2,811,650	\$728,476	.....	\$1,116,039	6	80	Dec. 31, 1861.
Great Western.....	1,608,045	*1,452,753	1,314,520	131,732	.....	\$267,257	6	..	Dec. 31, 1861.
Sun.....	1,494,160	1,488,268	1,094,566	94,397	\$126,836	.....	6	10	Oct. 4, 1861.
Mercantile.....	814,525	847,972	516,083	119,799	56,760	.....	6	12	Dec. 31, 1861.
Pacific.....	522,308	589,093	336,696	76,342	73,699	.....	6	10	Dec. 31, 1861.
New York.....	686,795	738,374	520,084	\$70,168	\$2,698	.....	6	10	June 30, 1861.
Columbian.....	*592,886	762,973	606,951	*163,430	*123,164	.....	7	..	Dec. 31, 1861.
Commercial.....	538,147	581,327	354,484	63,758	54,196	.....	6	10	June 30, 1861.
Union.....	432,754	518,082	162,077	*150,494	79,458	.....	6	31	Dec. 31, 1861.
Orient.....	\$60,416	517,342	268,232	86,312	46,308	27,016	6	18 3/4	Feb. 28, 1861.
Neptune.....	392,576	348,836	271,705	66,548	29,395	12,373	7	..	Dec. 31, 1861.
Washington.....	209,864	206,889	123,180	45,285	25,806	6,367	7	..	Dec. 31, 1861.
	\$11,572,706	\$12,196,376	\$7,397,288	\$1,788,746	\$666,220	\$253,736	\$2,102,989		

ASSETS OF THE MARINE INSURANCE COMPANIES OF NEW YORK, FOR 1861.

Companies.	Real Estate.	Stocks, Bonds, &c.	Loans on Stocks, &c.	Cash.	Dividends and Claims.	Subscription Notes.	Premiums, bills receivable, &c.	Total Assets.
Atlantic.....	\$288,760 00	\$2,923,403 81	\$800,341 00	\$245,543 94	\$123,788 02	.....	\$1,618,559 02	\$5,995,689 79
Great Western.....	.....	965,899 71	88,000 00	515,384 60	.....	.....	941,784 06	2,511,567 77
Sun.....	514,000 00	285,791 77	Incl'd in stock.	113,939 24	44,628 59	.....	706,425 58	1,694,686 13
Mercantile.....	.....	304,780 00	106,360 00	80,799 67	75,706 38	.....	560,087 97	1,226,723 97
Pacific.....	.....	498,461 20	98,668 63	83,376 90	25,649 45	\$21,502 50	220,514 73	948,173 43
New York.....	68,464 84	426,705 46	.....	24,337 59	51,896 48	.....	350,295 08	922,199 43
Columbian.....	.....	237,300 00	.....	96,138 00	63,396 31	Inc. in b. rec'd	531,619 28	918,453 59
Commercial.....	.....	560,825 48	.....	91,312 11	39,586 58	.....	320,292 07	920,704 13
Union.....	70,000 00	506,284 00	342,955 00	141,139 65	148,929 58	.....	368,137 70	1,567,446 93
Orient.....	.....	410,321 50	129,350 00	25,856 16	16,646 59	\$60,000 00	244,872 02	1,426,445 06
Neptune.....	.....	122,364 37	29,500 00	7,093 29	48,321 51	38,074 82	159,480 13	454,784 12
Washington.....	.....	25,000 00	37,111 54	34,690 73	48,357 13	.....	106,124 20	251,283 59
	\$686,294 84	\$7,367,136 30	\$1,626,285 17	\$1,450,810 77	\$671,800 47	\$709,577 32	\$6,123,491 78	\$18,633,014 93

* Less return premium. † For 14 months. ‡ Premium and expenses included in losses. § Including interest in investment. | Loss. ¶ Loss deducted, \$155,386.

MARINE LOSSES FOR MAY AND JUNE.

We publish below a statement of the marine losses for the months of May and June in detail, with the totals each month since January. It will thus be seen that the value of the property lost and missing for the six months, is \$8,659,700—about \$100,000 less than during the same period last year :

LOSSES FOR MAY.

Names.	Masters.	From.	For.	Value.
Str. Oriental	Tuzo,	New York,	Port Royal,	\$170,000
Richard, m*	Martin,	London,	Baltimore,	80,000
Santa Cruz	Beunett,	Shanghai,	Yangtze,	50,000
P. C. Wallace's . . . . .	.....	Ship Island,	Mississippi,	23,000
Ship Albert Currier .	Raynes,	Rangoon,	Bremen,	40,000
Eliza and Ella . .	Lunt,	Ship Island,	Boston,	40,000
Modern Times, m	Williams,	New York,	Bristol, E,	70,000
Oncauasta, a . . .	Hatfield,	Liverpool,	New York,	35,000
Sultan, m	Hiler,	Boston,	Liverpool,	85,000
Walter Scott, b.	Graffam,	Antwerp,	Soderham,	60,000
Yorkshire, m . . .	Fairbanks,	New York,	Liverpool,	100,000
Zone	Fullarton,	Shields,	Boston,	30,000
Milwaukee, m . .	Rhodes,	New York,	Havre,	105,000
Bark Silver Cloud, b.	Sherman,	.....	New York,	25,000
D. Chapin	Tucker,	New York,	Vera Cruz,	15,000
Flight, m	Hawks,	New York,	Liverpool,	35,000
Grapeshot, m . . .	Frisbie,	New York,	Barbadoes,	20,000
Robt. Parker, m.	Bounce,	New York,	Queenstown,	25,000
Hartley	Hazeltine,	Glasgow,	S. Francisco,	60,000
Diadem, m	Winchester	New York,	Queenstown,	38,000
W. Woodside, a	Parnell,	Akyob,	England,	25,000
Brig East	Spates,	New York,	S. Rosa Is.,	15,000
Elmir . . . . .	.....	New York,	S. Rosa Is.,	7,000
Adeline, m	Reynold,	Bordeaux,	Boston,	20,000
M. Slavianni, m.	Randich,	New York,	Queenstown,	20,000
Nahum Stetson.	Smith,	Havana,	Boston,	30,000
Ormus	Crapo,	Philadelphia,	Port Royal,	12,000
R. R. Haskins, m	Harding,	Pt. au Prince,	Boston,	19,000
Stade, (Ham)...	Rieper,	Shanghai,	New York,	140,000
Ormus	Crapo,	Philadelphia,	Port Royal,	7,000
Flower of the				
Forest, m	Mennie,	New York,	Cork,	29,000
Schr. Anna Maria, s.	Eldridge,	Philadelphia,	Portland,	6,000
Alice P. Dyer . .	Sullivan,	.....	Boston,	3,000
Brontes, m	Morton,	Aux Cayes,	Boston,	14,000
E. W. Pratt, b.	Nickerson,	Philadelphia,	Boston,	12,000
Gold Hunter, a . . . . .	.....	Halifax, N. S.	New York,	5,000

* Vessels marked a are abandoned at sea ; those marked m, missing, supposed lost ; those marked f, foundered ; those marked s c, sunk after collision, and those marked b, burned.

Names.	Masters.	From.	For.	Value.
Schr. Mary Mankin, <i>s c</i>	Beera,	New York,	Boston,	50,000
Swallow.....	Mania,	Gardiner,	Boston,	1,800
Wild Pigeon, <i>m</i>	Bailey,	Boston,	W. C. Africa,	7,000
W. S. Tisdale..	Fournier,	Bu. Ayres,	Rio Janeiro,	14,000
Yarmouth.....	Bush,	New York,	Roanoke Is.,	10,000
Caladonia, <i>b...</i>	Coombs,	Bangor,	Neponset,	4,500
Alice R. Dyer .	Sullivan,	.....	Boston,	2,000
Smack Manhattan's..	.....	N. London,	New York,	1,500

LOSSES FOR JUNE.

Names.	Masters.	From.	For.	Value.
Ship Beatrice, <i>m....</i>	Work,	Cardiff,	Hong Kong,	50,000
Isabel, <i>m....</i>	McDonald,	New York,	Liverpool,	64,000
Scargo, <i>a.....</i>	Howes,	Java,	Amsterdam,	35,000
C. H. Southard.	Howe,	Sunderland,	Genoa,	40,000
Chicago, <i>b....</i>	Ryan,	New York,	Acapulco,	75,000
Lucretia.....	Harding,	Hong Kong,	S. Francisco,	100,000
Forrest City, <i>m.</i>	Axworthy,	New York,	Rotterdam,	65,000
Bark Tiberius.....	Newman,	New York,	Queenstown,	58,800
Usworth, <i>m....</i>	Trumbull,	New York,	Queenstown,	35,000
Eliza & Charles.	Jones,	New York,	Gloucester,	39,000
James Cook....	Blanchard,	Matanzas,	New York,	12,000
O. J. Hayes....	Murray,	Aspinwall,	Pt. au Prince,	15,000
Oregon.....	Sloan,	Havana,	Bissau,	20,000
Brig Gipsey, <i>m.....</i>	Olsen,	Boston,	St. Jago,	12,000
Isaac Denison, <i>m</i>	Chapin,	New York,	Para,	18,000
Britius, <i>m....</i>	Williams,	New York,	Queenstown,	23,000
Quango.....	Brown,	Lingan,	New York,	8,000
Emma.....	Sherman,	Maco,	Singapore,	14,000
Arabell.....	Newcomb,	Cienfuegos,	Boston,	21,000
Schr. Garnett, <i>b.....</i>	Spear,	Rockland,	New York,	8,000
Sallie Timmons, <i>f</i>	.....	Baltimore,	Beauf't. N. C,	20,000
Brownstone.....	.....	Elizabethp't,	New Haven,	1,500
A. E. Douglas, <i>f.</i>	Coleman,	Philadelphia,	Boston,	6,000
Scotia.....	.....	Pictou, N. S.	Dighton,	4,500
Gazelle.....	Kesting,	Port Royal,	New York,	5,000
Harvest.....	Lawrence,	New York,	Providence,	4,500
Str. Gov. Morton, <i>s c.</i>	Goodspeed,	Ship Island,	N. Orleans,	18,000

	Vessels.	Amount.
Total losses for January.....	83	\$1,642,400
“ for February.....	48	1,346,200
“ for March.....	77	2,274,800
“ for April.....	40	1,224,700
“ for May.....	44	1,560,800
“ for June.....	27	767,800

Total losses for six months.....	319	\$8,659,700
Same period last year.....	276	8,763,580

CHAMBERS OF COMMERCE AND BOARDS OF TRADE.

1. PHILADELPHIA BOARD OF TRADE—EUROPEAN LINE OF STEAMERS. 2. BUFFALO BOARD OF TRADE—DEDICATION OF THEIR NEW ROOMS. 3. IRON TRADE MEETING.

PHILADELPHIA BOARD OF TRADE—EUROPEAN LINE OF STEAMERS.

Our Philadelphia friends are now working with considerable earnestness and fair prospects of success, to establish a European line of steamships, hoping thus to reestablish the foreign trade of that city. This subject was brought to the notice of the Board of Trade of Philadelphia, at their meeting held on the 26th of May last, by Mr. GEORGE L. BUZBY, who remarked in substance as follows:—

That the want of steamships for this port (Philadelphia), especially on European lines, had long been felt. The war now raging had for a time suspended every species of mercantile enterprise, but so imperious is our need of such vessels, that our attention cannot long be withdrawn from their construction and employment.

Philadelphia has been slow, too slow in this matter. The encroaching arrogance of a neighboring city, claims mints, air-line railroads, ship canals, &c., &c., at the general expense for her own exclusive benefit. This we would resist by building up our own commerce. Our magnificent river invites us to maritime enterprise. Through it we shall best counteract that spirit of monopoly, which would limit to a few what should be shared by all.

Without steamships our superior railroad connections do not profit us as they should. We want more outlet for the teeming products of the Northwest, and of our own manufactories. Our river is our highway to the world. Let us place upon it the ships.

The Pennsylvania Railroad Company comprehends this matter thoroughly. She has been compelled too long to pro rate with eastern transportation lines on produce which should have stopped and found a market here. She cannot see with satisfaction the attempts to arrest and bear away to another city, the freight moving upon her own rails. Her interests demand that this city should be her real terminus. With this view she builds her great grain elevator, lays her tracks to the river, and constructs her spacious docks at the foot of Washington street. Furthermore, she now leads in bringing the project of the Randall European Steamship Line to a practical solution. Under her powerful auspices, the business of the line will be assured and permanent. Nor let it be forgotten, that with the aid of the Randall ships we shall import not only for Philadelphia, but Baltimore, Cincinnati, &c., &c.

In this great undertaking, the Railroad Company asks the co-operation of our citizens, because all are interested. The merchant needs not to be told how deeply it concerns him. Nor yet the manufacturer. Our

bankers must anticipate with pleasure the volume of exchanges consequent upon a growing and mighty trade. The owner of real estate knows that good rents from prompt and willing tenants can only be had where commerce thrives. The mechanic plies his craft with most success in bustling cities, and even the painter and the sculptor resort to marts where commerce accumulates the wealth which fosters genius.

Having delayed so long to build these vessels, we should avail ourselves of what experience has been teaching meanwhile. We must have none but the best. The Randall ship combines in a degree hitherto unknown the elements of speed, safety, economy and comfort. This vessel then should be our choice.

It only remains to invite our citizens to come forward and each in his degree to lend his aid. Already some of our enterprising men have liberally subscribed for the stock of this steamship line. There is yet room for more. It is seldom that a project of such favorable promise is offered to the public. Under the powerful protection and aid of the Pennsylvania Railroad Company, the friction incident to a new undertaking will, in the present instance, be speedily overcome. It is easy to see how invaluable an ally is a great freight and passenger railroad to a first class steamship line with which it connects. They play reciprocally into each other's hands, the one supporting the other. Let us then come up to this work. If we will only use our opportunities, there is no degree of commercial eminence to which our city may not aspire, and in the end command. The prizes of trade are all within our reach, but they will not come to us unsought. We must be up and doing. *We can do longer afford to wait.*

The gentleman closed by offering the following, which were adopted :—

Whereas, It becomes more evident daily that the commerce of this port can never receive its just development without the more extended use of steamships, built and owned by ourselves—and

Whereas, Without that development every species of property in our city must be deprived of healthy growth and increase—and

Whereas, Our magnificent railroad connections with the interior cannot avail us as they should so long as we lack the best facilities for bearing away from our wharves the products of our own country, and bringing hither those of the old world—and

Whereas, It is understood that the Pennsylvania Railroad Company, with its accustomed energy, is prepared to take liberally of the stock of the first steamship of the Randall patent, to ply between this port and Europe, provided our citizens will do likewise. Therefore,

Resolved, That every material interest of our people, whether mercantile, manufacturing, or real estate, being directly concerned in the establishment of European steamship lines from this port, we again invite the co-operation of our citizens in this work, revived as it now is, under new and unusually favorable auspices.

Resolved, That the thanks of this community are due to the enterprising men who have recently come forward and subscribed to this great and necessary undertaking.

An article in the *North American*, of the 7th of July, shows the present condition of this enterprize. The writer says :—

“There still lacks a portion of the amount required to complete the

subscription to the capital stock of the first great steamship of the Randall European line; and although the public sentiment in its favor seems to be overwhelming, and in the course of time there will be no difficulty in obtaining all the money needed for four or six first class ocean steamers, yet it is now a matter of the utmost importance that this comparatively small amount of money should be subscribed promptly, in order that the building of the mammoth ship may be at once commenced, as it will take seven or eight months to complete her. We are sure that when our commercial readers reflect on the vast importance of a superior line of European steamships in order to re-establish the foreign trade of Philadelphia, and that this present effort has the support and confidence of the Pennsylvania Railroad Company, with all its immense capital and influence, of some of the leading banking houses and bankers in this city, parties controlling millions of capital and commanding the influence of many of the firmest and business concerns of this metropolis, and that it has been unanimously endorsed by the Board of Trade, which is the organized representative of the commerce of the city, they will feel no hesitation whatever in doing all they can to insure its immediate success."

BUFFALO BOARD OF TRADE—DEDICATION OF THEIR NEW ROOMS.

The *Buffalo Commercial Advertiser* tells us that on the 26th of June a large gathering of merchants, members of the bar and press, and citizens generally, met at the new rooms of the Buffalo Board of Trade—where an elegant and bountiful collation of meats, fruits, wines, &c., had been provided—and were addressed as follows by the President of the Board, G. S. HAZARD, Esq.:

Gentlemen: We have met here to-day to resuscitate the Buffalo Board of Trade, to invigorate it with new life, to incite it to increased usefulness, and to dedicate this beautiful and appropriate hall to trade and commerce. I congratulate you on this auspicious commencement of a new era. It betokens a determination to re-establish this institution on a reliable and permanent foundation, and as it was the first organization of this character west of the city of New York, let it be your endeavor to make it first in usefulness.

Associations under the name of boards of trade and chambers of commerce exist in nearly all the commercial cities in this country and in Europe, and the advantages derived from them are being more and more appreciated by business men; so much so that in the successful prosecution of an extensive business, an institution of this character, with a daily 'Change, is considered indispensable. There is an absolute necessity for a common meeting ground where merchants can assemble at an established hour to interchange views and opinions, bargain, buy and sell, and discuss matters of business generally.

A daily 'Change is like a great labor-saving machine, and if time is money, then it is a money-making institution. It presents the best means for promoting that kind of social intercourse, confidence, good will, and unity of interests which are so desirable among business men, and parti-

cularly among neighbors. In view of these advantages you only discharge a duty to yourselves in promptly sustaining the daily 'Change; but in doing so let us look a little higher and beyond the mere personal benefit or convenience it may be to individuals, and take an enlarged view of the purposes of the institution, for the question is frequently asked, "What are the objects of a Board of Trade?" Permit me, briefly, to answer this question. The objects and purposes of a Board of Trade are not only the daily routine of 'Change, but to establish and promote equitable principles and laws of trade, to reform abuses, correct inconvenient and useless customs, and establish those more in accordance with the spirit of the age; to establish a tribunal for settling disputes among its members without resort to expensive and vexatious litigation, and generally to protect the interests of the mercantile classes. Gentlemen, these motives and objects are noble in their character and worthy of your highest consideration and care. The observance of them will tend to elevate the character of your institution, and leave such land-marks and beacon lights as may serve to guide your successors in the business you are pursuing. In the minor details of your board there should be a daily exhibit of the state of your market as well as the markets of those cities with which you are in constant intercourse—the import and export as well as inland movement of all the great staples of the country—weekly and monthly statements of receipts and shipments, and yearly returns of the general business, commercial, manufacturing, and banking of your city, and in fact all statistical matter which can be of any use to the members of your board. In order to carry out these and other kindred measures which may be considered beneficial and necessary to the prosperity of this board, I ask the business men of Buffalo, one and all, to give it their earnest support and co-operation—not hesitatingly and unwillingly, but freely and liberally—for you cannot afford to economize in this matter. There is an old and favorite adage, that "in union there is strength." The truth of this has been exemplified in various ways and is still being demonstrated.

If it is a good maxim in war and politics, it is sound in commerce, and should be the motto of the mercantile classes. That a large and intelligent community owe a duty to themselves to establish an identity of interests, an union, which shall give them strength and make their voice and acts potential. Questions affecting commercial interests are frequently brought before Congress and State Legislatures, but who ever heard of a member of one of those august bodies consulting and advising with merchants on subjects concerning their most vital interests? They seem to be considered outsiders—no politicians, and of course are considered to know nothing of legislation. Heaven forbid that they *should* know much of this modern science. I admit that business men are not infallible, but it seems to me that legislators would be better able to frame useful laws touching the commerce of the country if they would more frequently consult men who have gained their knowledge by experience.

Without an organization you have no power—no voice. With it, you may possibly be heard on questions affecting the interest of the commercial community.

Gentlemen, this Board of Trade is not exclusive in its character; it was not organized for the benefit of any particular class of business men; it is intended for the entire mercantile community, which embraces all who

buy, sell, and get gain, and I would most respectfully invite the merchants, manufacturers, millers, bankers, and other business and professional men of this city to become members of this Board. It is directly for your interest to sustain this institution with a liberal spirit—the tax is not an onerous one, and the benefits, if wisely conducted, are incalculable. It must be made a useful business concern; it will then become popular and necessary for every merchant of good standing, (for none other is wanted here,) to belong to it.

The past year, so full of thrilling and painful events to our country, has been one of unexampled prosperity to our city, and shows the immense strides it is making in wealth and commercial importance. Permit me to go back only twenty-five years, when the entire receipts of breadstuffs at this port amounted to only about one million of bushels. Ten years later the receipts had increased to thirteen millions of bushels—the next decade gave us over twenty-two millions of bushels; five years later, bringing us down to 1861, the returns show the enormous receipt of fifty-eight millions of bushels, and many other articles have increased in proportion. As no other port on the face of the earth can compare with this, Buffalo stands unrivalled.

Situated at the eastern terminus of this great chain of inland seas, she sits like a queen receiving the tithes and offerings of vast possessions. The boundless West, pouring out its millions of bushels of golden grain, is but an infant giant growing stronger and more muscular year by year. The increasing business and rapidly developing resources of that mighty empire will astonish future generations as it has surprised the present.

The marvelous riches of the Indies, which made opulent so many cities of the Old World, sink into insignificance when compared with the stupendous agricultural and mineral wealth of the inexhaustible West.

Gentlemen, the lines have fallen unto you in pleasant places; you have a goodly heritage; it is for you to protect and foster it. You are the commercial representatives of this fair city. On you, perhaps more than on any other class, depends her future prosperity, good name, and position among her sister cities. Let, then, your course be progressive in every commendable effort to sustain and increase the good reputation she enjoys, and by your high standard of dealing and laudable ambition reflect honor on the character of your institution.

At the conclusion of the President's address, which was received with great applause, a letter was read from GEORGE C. WHITE, Esq., President of White's Bank, who presented to the meeting five baskets of champagne, accompanied by the following sentiment:

The Buffalo Board of Trade: May its meetings always be harmonious and mutually advantageous, and its members always prosperous and happy.

The sentiment was greeted vociferously, and the President, opening the first bottle of champagne, poured for Ex-President FILLMORE, Hon. N. K. HALL, and DEAN RICHMOND, Esq., who sat beside him, and filling his own glass, rose and drank with the guests.

Mr. WILLIAMS then came forward and gave "The health and long life of the Ex-President of the United States, Hon. MILLARD FILLMORE," which called forth a storm of plaudits.

Mr. FILLMORE, in response, expressed his surprise at the honor conferred upon him, thanked the author of the toast, and also the company, and proceeded to congratulate the merchants of Buffalo upon the revival of the Board of Trade, and the opening of the beautiful room in which they were assembled. He referred, by way of contrast, to its spaciousness and beauty, to the Royal Exchange in London, and "Lloyd's," the headquarters of the insurance business of the world, in the same city, both of which he had visited on his European tour. Each was entirely devoid of the evidences of taste here presented, lacked a host of conveniences, and the latter, in especial, was not half so commodious as this. The Exchange in Hamburg, Germany, was so small that the floor had to be marked off like a chequer board, every merchant having his separate check, upon which he might always be found standing during 'Change hours. The speaker hoped to see the day when the members of the Buffalo Board of Trade would be so numerous as to require the same system. He concluded by congratulating anew those present upon the evidences of prosperity around them, and expressing himself with them in everything relating to the welfare of Buffalo.

HENRY W. ROGERS, Esq., being called upon, spoke briefly :

He had been a resident of Buffalo only a comparatively short period, but when he came it was no uncommon thing to see vessels leave this port with the means of subsistence for the people of Wisconsin and Illinois. Now the trade was reversed, and Buffalo had become a port of receipt instead of export—the greatest port of receipt and the most important grain market in the new or old world. At no time had she been so strong as at present in wealth or reputation ; and her merchants would only need to avoid reckless speculation and adventure, and keep to the safe highway of legitimate business, to increase her prosperity and greatness ten-fold.

GEORGE B. HIBBARD was the next speaker called for. We append but a brief and incomplete sketch of his remarks. He said : It was scarcely to be expected upon so marked an occasion as the opening of these rooms that any thing should be said except by those immediately connected with the commerce of the place. Nevertheless, all professions were so connected with the prosperity of our commerce as to make the occasion one of importance.

The commerce of the place was to this city what the commerce of the world was to greater interests—the founder of States, the cause of all social development and the source from which springs the completest evidence of a nation's prosperity, its laws. It was appropriate, above all things, that reference should be made to the great internal trade of the lakes. The very cities which sit along the shores were but the hand-maidens of that commerce.

The source of our prosperity, to the great interests of trade, must also be attributed to our ultimate security and existence. Whatever so great a cause could have enabled this country to give the greatest exhibition of power in force or finance known to history ? And in the end, when the great abitrament, in which arms are the arguments, and the God of Hosts the judge, shall have passed, to the great interests of trade—must we look to restore the time when peace shall live along the farthest horizon of the future, and the constitution shall bend in its protection over all.

Mr. HIBBARD closed with an allusion to the great energy and high character of the business men of the town—to the courage and energy of the business men of the country.

Other remarks were made, but we have not the space for them. At the close a large number of new names were affixed to the Secretary's books, and a considerable amount in dues collected. We are very glad, therefore, that the success of the new enterprise is ensured. No place needs an active Board of Trade more than Buffalo, for many reasons. The yearly reports of such a body cannot be dispensed with. Carefully and accurately prepared statistics of her commerce are invaluable to the whole country, and yet, during the past four years, they have been very faulty and imperfect. We are pleased that this effort is made by men who never fail.

IRON TRADE MEETING.

We find reported in the *North American and United States Gazette* the proceedings of a meeting of the iron manufacturers and dealers, held at the rooms of the Board of Trade in Philadelphia, July 15th. Mr. JOHN WELSH was called to the chair, and Mr. CHARLES WHEELER chosen secretary. The Chairman announced that the meeting assembled under the following call from Messrs. TASKER & Co., THOS J. POTTS, McCULLOUGH & Co., and other representatives of the iron manufacturing interests, dated July 8th, 1862.

"Referring to circular of 5th ultimo, having for its object a reduction of credits from six to four months, it has been decided to call a meeting of those interested in the iron business, to be held at the rooms of the Philadelphia Board of Trade, No. 505 Chesnut street, on Tuesday next, July 15th, 1862, at 12 o'clock noon, to which you are respectfully invited.

"We trust you will see the importance of this movement and strengthen it by your presence."

The Chairman remarked that the object of this meeting was to try to get the trade unanimously to consent to a reduction of credits from six months, as has been the rule heretofore, to four months. The object is so apparent, and so evidently for the general good, that there could be no necessity for saying much to enforce it. The circular was addressed to a great many parties, some of whom are here; others have forwarded communications which, if the meeting desire, will be read.

About seventy-five communications were received, the largest portion of which were read by the Secretary.

Mr. Hugh E. Steele then offered the following preamble and resolutions, which, after the addition of the fourth resolution as proposed by Mr. Samuel J. Reeves, read as follows:

Whereas, a reform in the credit system of the iron trade is desirable for the interest of the consumer as well as of the manufacturer and dealer; and whereas, concert of action is necessary to consummate the same, it is therefore resolved,

First. That the credits on sales on and after the first of August, 1862, be reduced to four months.

Second. That sales for cash should in all cases be held to imply a settlement within ten days.

Third. That the discount for cash should not exceed four per cent.

Fourth. That settlements of bills, whether by cash or note, shall be made in currency equal in value to the United States legal tender notes.

Fifth. The foregoing resolutions are recommended by this meeting as a rule of action for the iron trade, and the individuals and firms consenting thereto pledge themselves that they will give these resolutions their united and hearty support.

Sixth. That the proceedings of this meeting be published, and copies sent to all members of the trade.

These resolutions were fully discussed and unanimously adopted :

Mr. Reeves offered the following resolution :

Resolved, That we recommend the trade to establish the uniform custom of adding the excise at the foot of the bill of sale, and that, when quotations of price are made it shall be understood that the tax be an additional charge.

The chairman remarked, in reference to this resolution, that he thought it ought not to be adopted. It would appear to be setting a bad example to a large community of manufacturers, most of whom would immediately follow in our steps. Every manufacturer of every description would take this action as his guide, and from the smallest article up to the largest the price would be quoted irrespective of the tax, and every account would be rendered with the tax separately stated. The true principle is to look upon the tax as a part of the cost of production, and estimate it in that way. We had better look upon it as a part of the production in all instances. It is a tax upon profits, upon manufactures, and it would be rendered odious if distinguished as the resolution proposes. The chairman thought none of the gentlemen in the trade would, under any circumstances, take a position likely to embarrass the government, or to render its claims on us in the way of taxation in the least degree distasteful. All should concur in efforts to show that these taxes are cheerfully paid.

Mr. Reeves disclaimed any idea of rendering taxation odious, and if such a result could by any possibility follow the adoption of his proposition he would withdraw it. As there seemed to be some opposition to the views expressed in his resolution, he withdrew it.

After making provision for paying the expenses incurred, the meeting adjourned.

JOURNAL OF BANKING, CURRENCY, AND FINANCE.

1. CITY WEEKLY BANK RETURNS—NEW YORK BANKS, PHILADELPHIA BANKS, BOSTON BANKS, PROVIDENCE BANKS. 2. WEEKLY STATEMENT BANK OF ENGLAND.

CITY WEEKLY BANK RETURNS.

NEW YORK BANKS. (*Capital, Jan., 1862, \$69,493,577; Jan., 1861, \$69,890,475.*)

Date.	Loans.	Specie.	Circulation.	Net Deposits.	Weekly Clearings.
January 4,.....	\$154,415,826	\$23,983,878	\$8,586,186	\$111,789,233	\$100,642,429
" 11,.....	152,088,012	25,378,070	8,121,512	113,889,762	105,634,811
" 18,.....	149,081,433	26,120,859	7,869,028	113,327,160	107,732,780
" 25,.....	145,767,680	26,698,728	6,828,017	110,874,786	100,001,959
February 1,.....	144,675,778	27,479,583	6,404,951	112,057,003	93,791,629
" 8,.....	143,803,890	28,196,666	6,077,417	110,637,557	113,216,297
" 15,.....	141,994,192	28,114,148	5,762,506	110,430,475	105,102,177
" 22,.....	139,950,958	28,875,992	5,469,496	109,079,076	111,346,066
March 1,.....	137,674,238	29,826,959	5,363,944	107,974,499	109,854,823
" 8,.....	133,055,148	30,436,644	5,869,206	103,715,728	112,512,576
" 15,.....	130,622,776	30,773,050	5,904,866	100,296,704	118,957,978
" 22,.....	127,615,306	32,023,890	6,260,309	97,601,279	115,376,381
" 29,.....	125,021,630	32,841,802	6,758,313	94,425,071	106,973,432
April 5,.....	124,477,484	33,764,382	7,699,641	94,082,625	111,336,384
" 12,.....	123,412,491	34,594,668	8,004,843	93,759,063	114,738,013
" 19,.....	123,070,263	34,671,528	8,664,663	95,179,340	113,529,377
" 26,.....	125,086,825	35,297,944	8,118,571	101,897,435	124,396,733
May 3,.....	133,406,418	35,175,828	8,482,782	109,634,535	140,952,471
" 10,.....	138,948,211	32,239,868	8,380,321	115,559,206	131,113,537
" 17,.....	142,290,782	30,260,697	8,727,328	120,008,929	167,391,055
" 24,.....	142,950,149	30,672,760	8,592,676	122,602,864	142,828,565
" 31,.....	142,671,414	31,397,284	8,535,149	125,484,755	136,893,373
June 7,.....	142,318,381	31,248,832	8,813,603	125,566,961	148,123,103
" 14,.....	144,014,350	31,162,048	8,814,322	125,643,375	165,521,454
" 21,.....	146,839,762	31,047,945	8,849,183	126,684,422	168,059,997
" 28,.....	148,346,422	30,832,626	8,910,344	127,860,708	154,890,445
July 5,.....	148,643,718	31,790,519	9,270,315	127,496,534	149,743,923
" 12,.....	147,997,436	32,098,174	9,212,397	127,538,055	167,789,726
" 19,.....	148,827,428	31,926,609	9,155,301	129,485,977	161,066,594

PHILADELPHIA BANKS. (*Capital, Jan., 1862, \$11,970,130.*)

Date.	Loans.	Specie.	Circulation.	Deposits.	Due to banks.	Due from banks.
Jan. 6,...	\$31,046,537	\$5,688,728	\$2,145,219	\$21,396,014	\$3,645,958	\$1,796,806
" 13,...	31,145,938	5,692,123	2,162,152	21,324,510	3,992,952	1,702,716
" 20,...	30,601,160	5,733,450	2,120,756	20,698,498	4,120,261	1,575,116
" 27,...	30,385,606	5,821,323	2,121,146	20,058,098	4,209,006	1,858,688
Feb. 3,...	30,385,319	5,884,011	2,144,398	20,068,890	4,572,872	1,707,136
" 10,...	29,974,700	5,923,874	2,191,547	19,032,635	4,890,288	1,587,481

Date.	Loans.	Specie.	Circulation.	Deposits.	Due to banks.	Due from banks.
Feb. 17,...	29,868,544	5,819,854	2,191,512	18,692,182	4,661,442	2,052,031
" 24,...	29,280,049	5,867,686	2,280,605	18,777,800	5,205,208	1,935,414
Mar. 3,...	29,898,856	5,881,108	2,343,493	18,541,190	5,218,383	1,828,383
" 10,...	28,083,499	5,864,730	2,575,603	17,375,771	5,181,834	1,733,169
" 17,...	28,723,835	5,897,891	2,632,627	17,253,461	5,342,876	1,649,187
" 24,...	28,360,815	5,915,585	2,707,804	17,066,267	5,210,865	1,774,162
" 31,...	27,831,333	5,884,314	2,904,542	17,024,198	5,100,186	2,134,392
April 7,...	28,087,691	5,886,424	3,378,970	16,636,538	5,607,488	2,231,889
" 14,...	28,076,717	5,912,870	3,496,420	18,112,446	4,868,842	2,684,171
" 21,...	28,246,733	6,046,260	3,525,400	19,011,833	4,548,327	2,504,147
" 28,...	28,798,116	6,052,827	3,613,994	20,223,556	4,470,674	3,128,069
May 5,...	29,524,432	6,049,685	3,759,692	21,816,614	4,531,837	3,823,659
" 12,...	29,666,347	5,728,028	3,867,200	23,002,268	5,118,541	4,981,291
" 19,...	31,121,563	5,529,221	4,045,696	23,885,009	5,597,984	4,804,956
" 26,...	31,533,608	5,587,012	4,186,055	23,978,478	5,472,615	5,120,902
June 2,...	31,747,070	5,583,482	4,335,018	24,884,644	5,373,322	5,372,748
" 9,...	31,951,715	5,582,307	4,354,599	24,973,011	5,161,280	5,855,034
" 16,...	32,132,654	5,630,503	4,298,023	24,807,067	5,086,328	5,896,328
" 23,...	32,554,655	5,609,926	4,324,735	24,143,814	5,144,628	4,800,094
" 30,...	32,911,578	5,578,999	4,430,057	24,410,423	5,583,644	5,233,273
July 7,...	33,206,661	5,545,007	4,749,220	24,307,782	5,783,574	5,422,124
" 14,...	33,118,502	5,579,945	4,859,921	24,183,604	5,936,594	5,415,203
" 21,...	33,086,808	5,613,724	5,005,533	24,485,817	5,794,325	5,219,445

Boston Banks. (Capital, Jan., 1862, \$38,231,700; Jan., 1861, \$38,231,700.)

Date.	Loans.	Specie.	Circulation.	Deposits.	Due to banks.	Due from banks.
Jan. 6,...	\$65,612,997	\$3,920,436	\$6,451,587	\$27,093,839	\$9,187,924	\$8,701,873
" 13,...	64,704,039	3,530,607	6,613,512	25,642,994	9,634,227	8,805,255
" 20,...	64,409,585	3,585,277	6,549,871	25,441,327	9,547,319	9,018,388
" 27,...	63,025,191	3,562,175	6,284,268	24,030,776	9,593,545	8,727,348
Feb. 3,...	62,628,798	3,529,483	6,260,299	23,500,321	9,727,783	8,766,415
" 10,...	62,340,600	3,514,600	6,316,000	22,784,700	9,392,600	8,965,600
" 17,...	62,537,788	3,410,890	6,469,309	22,034,794	9,653,725	8,315,887
" 24,...	62,053,640	3,341,588	6,580,205	21,515,238	9,625,869	8,644,360
Mar. 3,...	61,678,500	3,364,500	6,318,700	21,208,500	9,681,500	8,982,600
" 10,...	61,834,500	3,409,585	6,693,139	20,740,208	9,906,110	8,450,721
" 17,...	61,747,000	3,471,000	6,364,800	20,554,000	9,790,000	7,981,000
" 24,...	61,655,420	3,441,053	6,219,512	20,326,087	9,715,256	7,669,531
" 31,...	61,360,789	3,441,196	5,908,272	19,975,018	9,434,782	6,978,527
Apr. 7,...	61,208,974	3,674,170	6,557,152	21,014,000	9,245,088	8,133,124
" 14,...	61,058,969	3,688,578	6,170,883	21,009,010	9,949,259	7,173,374
" 21,...	61,019,787	3,679,366	5,924,906	21,570,017	8,529,277	6,946,164
" 28,...	60,441,452	3,666,797	5,500,396	22,402,134	8,493,004	7,818,530
May 5,...	59,805,545	3,593,990	5,453,315	23,323,199	8,655,206	9,893,508
" 12,...	59,521,251	3,422,738	5,537,937	24,827,121	9,197,744	11,755,589
" 19,...	60,069,635	3,304,534	5,602,344	25,792,916	9,614,737	13,105,350
" 26,...	60,266,275	3,108,695	5,503,756	26,264,656	10,029,198	13,95,836
June 2,...	60,677,367	3,089,723	5,343,138	26,730,466	10,226,491	13,924,596
" 9,...	62,059,198	7,983,425	5,696,413	26,277,021	10,610,702	12,883,043
" 16,...	62,591,341	7,994,899	5,875,612	25,602,048	10,632,170	11,884,692
" 23,...	63,066,262	7,850,634	6,159,115	25,994,738	10,644,000	12,122,000
" 30,...	63,638,999	7,801,487	6,131,019	26,237,764	10,678,205	12,265,781
July 7,...	64,590,268	7,934,037	6,943,327	26,368,862	11,666,142	13,869,180
" 14,...	65,635,000	7,978,000	7,091,000	26,685,000	12,675,700	13,624,000
" 21,...	65,939,168	7,980,780	6,840,474	26,806,242	13,436,436	14,060,762

PROVIDENCE BANKS. (Capital, Jan., 1862, \$15,454,600.)

Date.	Loans	Specie.	Circulation.	Deposits.	Due to banks.	Due from banks.
Jan. 11,	\$19,356,800	\$408,700	\$1,889,600	\$3,054,600	\$1,099,800	\$915,400
" 18,	19,288,700	402,900	1,890,800	2,899,200	1,071,500	898,500
" 25,	19,160,600	394,700	1,756,500	2,899,600	959,400	1,057,400
Feb. 1,	19,160,600	394,700	1,811,100	2,950,500	871,800	925,500
" 8,	19,687,700	395,900	1,814,300	2,915,200	900,400	934,700
" 15,	19,109,400	394,800	1,784,000	2,762,200	911,100	1,081,000
" 22,	18,869,800	396,800	1,879,100	2,792,700	893,900	1,180,000
Mar. 1,	18,920,500	407,500	1,791,200	2,924,400	953,900	1,283,000
" 8,	18,953,900	405,100	1,973,500	3,030,600	1,181,500	1,598,800
" 15,	18,998,600	408,500	1,848,100	2,946,800	1,103,200	1,484,300
" 22,	19,148,400	408,300	1,879,200	3,060,900	1,085,000	1,407,700
" 29,	19,360,500	411,300	1,867,100	3,078,800	1,021,000	1,165,400
Apr. 5,	19,641,000	417,500	2,102,000	3,124,000	1,115,500	1,063,200
" 12,	19,719,200	416,600	2,036,800	3,017,700	1,081,000	894,800
" 19,	19,644,500	408,600	1,963,400	3,015,900	1,020,400	845,400
" 26,	19,620,300	413,700	1,877,200	3,123,500	948,400	961,200
May 3,	19,588,410	417,378	1,979,828	3,184,601	950,430	1,156,072
" 10,	19,070,200	410,300	1,969,400	3,164,700	1,132,500	1,714,400
June 7,	19,236,100	395,600	2,016,600	3,342,400	1,658,000	2,101,900
" 14,	19,641,600	388,500	2,182,700	3,274,600	1,666,500	1,818,200
" 21,	19,827,500	385,500	2,324,900	3,158,600	1,627,500	1,744,400
" 28,	20,295,500	383,400	2,510,500	3,283,200	1,873,500	1,753,700
July 5,	20,588,800	382,100	2,838,300	3,531,500	1,763,900	1,858,800
" 12,	20,416,400	388,000	2,953,800	3,185,100	1,744,800	1,796,600
" 19,	20,494,600	384,800	2,980,200	3,347,300	1,918,500	2,023,400

BANK OF ENGLAND.

WEEKLY STATEMENT.

Date.	Circulation.	Public Deposits.	Private Deposits.	Securities.	Coin and Bullion.	Rate of Discount.
Jan. 1, . . .	£20,818,190	£7,846,833	£15,036,062	£30,419,730	£15,961,439	3 pr. ct.
" 8, . . .	21,086,675	4,542,974	18,206,488	31,022,505	16,046,017	2½ "
" 15, . . .	21,460,925	4,583,358	16,480,452	29,509,864	16,291,624	2½ "
" 22, . . .	21,697,928	5,467,840	15,366,081	29,464,720	16,350,939	2½ "
" 29, . . .	21,183,376	5,753,063	14,751,486	28,696,456	16,280,869	2½ "
Feb. 5, . . .	21,427,554	5,788,441	14,179,917	28,834,352	15,956,903	2½ "
" 12, . . .	21,286,312	4,884,989	15,526,334	29,010,241	16,042,949	2½ "
" 19, . . .	20,772,726	5,897,144	15,085,843	28,771,812	15,894,405	2½ "
" 26, . . .	20,786,715	5,762,849	14,989,742	29,024,962	15,749,065	2½ "
Mar. 5, . . .	21,217,246	6,755,287	13,737,607	29,692,441	15,678,898	2½ "
" 12, . . .	20,013,685	7,527,911	13,763,718	29,489,795	16,027,111	2½ "
" 19, . . .	20,488,509	8,011,694	13,840,928	28,958,089	16,548,586	2½ "
" 26, . . .	20,814,655	8,418,275	13,154,258	29,140,207	16,812,798	2½ "
April 2, . . .	21,501,593	8,456,468	13,622,532	30,398,790	16,849,198	2½ "
" 9, . . .	21,822,105	5,625,314	16,336,169	29,981,793	16,881,940	2½ "
" 16, . . .	22,048,468	5,225,132	15,710,260	29,325,888	16,743,434	2½ "
" 23, . . .	21,655,553	5,534,973	15,915,247	29,022,128	17,172,204	2½ "
" 30, . . .	21,946,997	6,867,375	14,357,007	29,164,075	17,089,446	2½ "
May 7, . . .	21,762,884	7,503,991	13,866,648	28,961,214	17,265,745	2½ "
" 14, . . .	21,618,780	6,304,683	14,948,308	29,076,079	16,919,147	2½ "
" 21, . . .	21,539,430	6,557,811	14,567,671	29,433,044	16,344,940	3 "
" 28, . . .	21,265,561	6,937,808	14,685,087	29,824,704	16,178,315	3 "
June 4, . . .	21,515,263	7,518,007	13,188,136	29,841,864	15,489,723	3 "
" 11, . . .	21,329,641	8,825,516	13,156,663	31,396,492	15,036,100	3 "
" 18, . . .	21,076,059	9,322,949	13,085,271	31,342,547	15,268,453	3 "
" 25, . . .	21,172,057	9,629,594	13,899,245	31,424,661	15,909,638	3 "
July 2, . . .	22,242,361	9,672,345	13,851,869	32,709,039	16,220,771	3 "
" 9, . . .	22,504,490	5,429,939	17,199,715	31,287,912	17,055,537	2½ "

THE COTTON QUESTION.

1. CULTIVATION OF COTTON IN INDIA—DEBATE IN HOUSE OF COMMONS. 2. CULTIVATION OF COTTON IN QUEENSLAND AND JAMAICA. 3. STOCK OF COTTON IN EUROPE. 4. THE SUPPLY WILL EQUAL THE CONSUMPTION. 5. COTTON IN ALGERIA.

CULTIVATION OF COTTON IN INDIA—DEBATE IN HOUSE OF COMMONS.

THE *European Times*, in speaking of the cotton debate in the House of Commons on Thursday the 19th of June, says: This debate has not occurred a day too soon, and if any impetus to the movement on the part of the government were required, it was found in a deputation from the operatives of Lancashire, who had had an interview on the morning of the day on which the debate took place with the Indian Minister. The sufferings of these men and their families appear to have produced a deep impression on Sir CHARLES WOOD. The capacity of India to grow a better description of cotton than previously, and the desire of the manufacturers of this country to use it when it reaches them, was made apparent to the members who were present, as it will be to all who have perused the debate. But there are, nevertheless, formidable difficulties in the way—difficulties which would be almost insuperable if the existing state of things in Lancashire had not a tendency to brace every nerve to attain the desired end. First, there are the ryots, who, poor, ignorant, and superstitious, require every inducement that capital, the best seed, the best training, and the utmost liberality can extend to them. Then come the difficulties of transit, and the expense of railways, the improvement of the Godavery, respecting the capacity of which river under any system of engineering to answer the purpose of traffic, the most conflicting opinions prevail. Again, in the financial position of the Indian Government is found a formidable obstacle. With an expenditure greater than income, and a deficit, at one time formidable, but which is every year becoming less, considerable caution is required respecting the raising of new loans, and the carrying out of vast undertakings with borrowed money. These are, undoubtedly, formidable drawbacks, but the government are willing to meet them in the face of the serious and protracted dangers with which we are threatened.

It appears to have been conceded throughout this debate that years must elapse before we can look again to America for a supply of cotton, and some of the most intelligent speakers expressed their belief that the southern portion of North America would never be able to supply us, as hitherto, with enough of the staple for our own wants. But some of the practical men in this debate held out the encouraging consolation that, with proper care and a wise liberality towards the ryots, Indian cotton might in a short time be brought up to the standard of middling New Orleans, and indeed some small stocks of cotton from the East, answering this expectation, have been received, and their value tested by actual spinning. Setting aside minor considerations, the speech of the Indian

Minister appeared to meet the question very fairly, but enough transpired to show that the production of cotton in India will always be more or less intermittent, more or less of a lottery, as long as the price in the home market is uncertain and the demand irregular. Even when all that the government can be expected to do has been fairly done, the spasmodic efforts now about to be recommenced will relax and ultimately become paralysed, unless the spinners in Lancashire will give up the exclusive dependence they have hitherto placed on America, and extend, even should the South begin to supply us again sooner than is at present expected or believed to be possible, some portion of their patronage to the Eastern supply.

The misery of being exclusively dependent on the Southern States for an article of national existence like cotton has been the cry of the Manchester manufacturers for years past, and, though they have had associations in existence to remedy this evil, they have effected little or nothing towards that end. They have talked rather than worked, crying to Hercules for help without adequately helping themselves, and they now find that they are surrounded by a starving population, and their works and capital suspended. In fact, to such an extent has this lethargy been carried, that the Southern planters conceived themselves masters of the situation, and boldly proclaimed that "*Cotton was King.*" Events, so far, have not quite realised this anticipation, but our sufferings at the present moment, in consequence of the cotton famine, are only inferior to those which the belligerents are themselves enduring on the Western Continent. If the same exertions had been made to procure cotton from India and elsewhere that we have seen put forth during the last fifteen or eighteen months, we should now be spared the distress under which both the operatives and those who employ them in this country are laboring. It was solely and exclusively a Manchester—in other words, a cotton question; but action was deferred until the wolf was at the door, threatening to devour the inmates. Adversity is a bitter school in which to graduate, and we are at the existing hour tasting its bitterness with a vengeance. The truth is, that the wealthy capitalists of the manufacturing districts refused to put their hands into their pockets to provide a remedy, with becoming liberality, until it was too late—until the war was really commenced, and if they had suffered alone, the amount of sympathy felt for them would not have been extensive; but unhappily others, who are by no means to blame, are suffering also, and far more acutely. It is for the poor—for those who have no friends—that our philanthropy is awakened, and we hope that the crisis through which we are now passing will prove an instructive lesson in all future time.

COTTON CULTIVATION IN QUEENSLAND AND JAMAICA.

QUEENSLAND.—The following was received at Liverpool by the June mail, *via* Marseilles:—Three experienced gentlemen have lately arrived in Brisbane with a view to cotton cultivation on a large scale. One of these is managing director of the company lately started by Mr. BAZLEY in Manchester, another is engaged as manager of the Booval Company, and the third agent for a wealthy Sydney firm. Two large emigrant

vessels—the Montmorency and the Clifton—bringing an addition of 450 to our population, have arrived during this month. It has been determined by the government that after October 1st, land orders shall be given to such persons as arrive in Queensland direct from Europe; also, that these orders will not be received in payment for town and suburban lands sold by the government, but only for country lands. We are glad to find that a large number of the emigrants have already obtained employment, and the prospects in the country districts for those who have gone up is also good. One matter we are particularly pleased with, and that is the very respectable class of persons who have come out by both vessels, those who evidently will make really good colonists. This reflects great credit on the judgment of Mr. HENRY JORDAN, the emigrant commissioner, through whom most of the passengers have been induced to venture their fortunes in Queensland.—*Queensland Guardian*.

THE CULTIVATION OF COTTON IN JAMAICA.—The agent of the Jamaica Cotton Company, at Manchioneal, Jamaica, writes by the same packet as follows:—"I have a great number of people employed, and one week's pay-bill came to £39. I have to turn away the laborers by hundreds, and some of them cry when I do so. We are getting fine seasons for planting, and the cotton is growing beautifully. The Egyptian cotton is coming in fast, and we are also picking Sea Island. Even some of Mr. OGDEN's cotton is blossoming. I have sent round four more bales for shipment, but we find great difficulty in getting it taken. The Royal Mail Steam Company refuse to take it on any terms, and Holt's Liverpool line, will only take it if they have room. I am, however, trying hard to get the fifteen bags sent by this packet—they contain 2,200lb. I am still buying small quantities from the negroes. We will get a good quantity to buy next year, as many people are planting. We have plenty of Mr. WAGUELIN's red bugs, but they do not hurt the cotton in the least, they appear to get into the cotton for warmth, and tumble off directly it is touched. They only come at this season of the year". A Wesleyan minister, writing from the same parish, states:—"You could not have fixed on a better place as a matter of economy, for Muirton is near the shipping place, not even a mile distant from it, and possesses a fine water-power for the gins, and is in the centre of a district that for eighteen miles has not a single property of any description to compete in the labor market, except the governor's property. As an act of charity to the people, so destitute of employment, near at home, by which they can get a little ready money, it is looked upon by them in the light of a merciful Providence, whose 'opportunity was found in their extremity.' There is an abundance of land in this district adapted to the growth of cotton, and though other parts of the island have lands which would yield heavier crops, yet I know no spot where there is less competition for labor, and where the people will be more cheerful in working for moderate wages faithfully and punctually paid. My servant (our cook) planted a tree in 1854, it is a wide-spreading tree in perfection now, and in seeds and cotton has yielded at least eight shillings' worth in the year. Two of my people at Fair Prospect, near Elmwood, picked each 12lb. of cotton in the seed off two trees at one picking, but they had picked cotton before off those trees, and will pick again and again before the year is out."

THE STOCK OF COTTON IN EUROPE.

The following is an estimate of the stock of cotton in Europe on June 1, 1862, as compared with the corresponding period of 1861. The returns are reliable:

	1862.	- 1861.
Hamburg.....bales	800	16,700
Bremen.....	350	14,100
Amsterdam.....	1,750	26,800
Rotterdam.....	1,450	8,650
Antwerp.....	500	8,300
Havre.....	38,750	320,750
Bordeaux.....	.....	3,150
Marseilles.....	1,950	8,650
Genoa.....	450	4,500
Trieste.....	1,750	6,350
Glasgow.....	2,000	30,000
London.....	53,000	48,150
Liverpool.....	325,287	1,148,800
	<hr/> 428,037	<hr/> 1,644,900
		<hr/> 428,037
Deficit.....		<hr/> 1,216,863

The annexed figures show the gradual decline in the stock of cotton at Liverpool since the commencement of the second quarter of the year:

	1862.	1861.	1860.
Stock April 4.....bales	455,950	942,330	906,040
" " 11.....	429,730	884,860	955,640
" " 18.....	389,530	874,330	1,015,880
" " 25.....	398,570	952,740	1,027,290
" May 2.....	367,270	990,690	1,016,630
" " 9.....	348,420	906,810	1,037,130
" " 16.....	365,390	1,049,590	1,111,260
" " 23.....	378,460	1,111,510	1,200,730
" " 30.....	370,380	1,151,010	1,295,570
" June 6.....	324,690	1,148,650	1,358,630
" " 13.....	289,120	1,131,080	1,335,040

The quantity of cotton now on hand is therefore less than one-fourth of the stock in store two years since.

THE SUPPLY WILL EQUAL THE CONSUMPTION.

As to the future supply and consumption of Cotton, the *Exchange Review* of Liverpool says:—

Though the prospects are anything but pleasing, and do not warrant us in looking for any immediate improvement, still we do not think them gloomy enough to force us to abandon the belief that, though our position may not be better, at all events it will not be worse than at present.

We believe that the consumption of cotton has been reduced to its minimum point, and we have reasonable grounds for believing that the supply of the raw material will be equal to the minimum consumption, even supposing the close of the American war to be indefinitely postponed. The present consumption of cotton is about 24,000 bales per week, and consists of 15,000 bales of East Indian, 5,000 bales of American, and 4,000 bales of the produce of other countries. The relative proportions of American and East Indian cotton will be considerably changed as time progresses, but the total of all kinds will probably remain about the same, until more ample supplies are placed at the command of the trade. Should the war continue long enough, and should the opening of the Southern ports by the Federals fail to renew the exports of cotton, the American fibre will shortly stand lowest in amount, as compared with the consumption of other descriptions. The growth of India is capable of supplying the place of American when the latter is absent; but the produce of the Southern States, when present in sufficient quantities, has no difficulty in keeping its short-stapled rival in a subordinate position. The cotton resources of India are practically unbounded; but the cotton-grower knows that should he send over to England a quantity of cotton equal in extent to the absent American supplies, he runs the risk of meeting his giant competitor, and being driven out of the market as an interloper. Hence the small import from India during the present year, and the fact that at the time we write there are only 190,000 bales of Surat cotton on the water for the port of Liverpool, against 290,000 bales at the corresponding period of last year. This may be traced almost solely to the idea prevalent a year ago, that the Transatlantic civil war would only be of short duration.

As it is, the consumption of cotton, at the rate of 24,000 bales per week for the home trade, and 8,000 bales per week for exporters, for the thirty-two weeks between now (May 23) and the end of the year, will require a supply of 1,024,000 bales. To meet this, we have 379,000 bales in stock, 700,000 bales may be expected from India, and 170,000 from the Brazils, Egypt, and other miscellaneous sources; besides this, it is calculated that we shall get on an average about 2,000 bales per week from different parts of the United States, or 64,000 bales in all. This would give a total supply of 1,300,000 bales, to meet a demand for 1,024,000 bales, thus leaving 276,000 bales on hand on the 1st January 1863.

Then, with respect to the condition of the hands in the manufacturing districts, we do not look for any further increase in the distress. Matters seem to have attained their worst phase in the middle of March, and from that date to the end of April the statistics of pauperism exhibit but slight variation.

The resources of the cotton districts have occasionally been much heavier taxed than at the present time; and the overseers do not express the slightest doubt of their ability to raise all the funds necessary to meet the requirements of the unemployed. The poor's-rate of Lancashire is very much lower than that of many other counties, and compares favorably with previous assessments within its own limits; besides which, the wealth of the country has increased amazingly during the past few years. The annual value of the property in the county and boroughs of Lancashire in 1856 was £7,298,000; in 1860 it was

£10,458,000! The improved condition of the people during the same period is shown by the facts, that whilst of the poor-rate levied in Salford ten years ago only 74 per cent was collected, in 1860 95 per cent was realized; and that for 83 per cent collected in Manchester in 1850, 88 per cent was obtained in 1860. At the present time the rate of assessment in Salford is 3s. in the pound; in 1860 it was 2s. 10d.; but in 1847 it was 7s. In Manchester the current rate is 3s. 4d.; in 1860 it was also 3s. 4d.; and in 1848, 6s. 8d. The value of the property rated in Salford, in 1847, was £149,701; and in 1860, £169,708. In Manchester, in 1848, the value was £647,568; and in 1860, £789,203. With such ample means at their disposal, the guardians are perfectly justified in declaring their ability of relief to be far from exhausted, and the public need not be afraid of the future.

But though Lancashire is fully competent to meet its own wants, still assistance ought to be rendered from other parts of the kingdom, for the stoppage of the cotton supplies is not the fault of Lancashire alone. The refusal on the part of the English government to interfere between North and South, for the purpose of putting an end to the war, is the policy of the nation, and it is not right, therefore, that a single section of the country should bear all the evil resulting from that policy, highly as we approve of the principles of non-intervention. The liberal reply made by the outside public, shows that the wealth of extra-Lancashire is most willing to contribute towards alleviating the distress of the county. Already large sums have been sent down from London, and subscriptions are forthcoming from other quarters.

COTTON IN ALGERIA.

An official pamphlet by M. ACHILLE FILLIAS, entitled "*Elat Actuel de l'Algérie*," has just been published by order of Marshal PELISSIER, Duc de Malakoff. It contains some interesting information on the prospects of Algeria as a cotton-growing country. Algeria, M. FILLIAS thinks, is destined to play a great part in the cotton trade at no distant period. Experiments which have been going on since 1844 show that the Georgian long-staple, as well as the Egyptian or Jumel, as it is called, and the Louisiana quality, may be easily acclimatised in the three provinces of Algeria. It is true that the tables he publishes on the subject show that the cultivation of cotton in that dependency is quite in its infancy. It cannot be denied, however, that there has been a progressive increase of production since 1851, when only 4,303 kilogrammes were gathered, while in 1861 we find the somewhat more respectable figure of 158,642 kilogrammes. The only difficulty Algerian planters still meet with, in their efforts to extend their trade, is the dearness of manual labor. On the other hand, the French government grants premiums to the growers both on the amount exported and on that sold to the government itself.

JOURNAL OF MINING, MANUFACTURES, AND ART.

1. THE SALT WELLS OF MICHIGAN. 2. LAKE SUPERIOR VS. CORNWALL.

THE SALT WELLS OF MICHIGAN.

THE following on this subject we condense from an article in the *Western Railroad Gazette* :

On the 20th of June, 1797, the first leases were granted for the manufacture of salt at the Onondaga Springs, in New York, and since that time and to the close of the year 1860, 130,737,157 bushels had been produced. Within a few years past, a new and powerful rival to this, as it were, monopoly of production, has been created by the development of the saliferous rocks of the lower peninsula of Michigan, and throughout the West, more especially, the quality of the article there manufactured, is gradually working it into very general favor. Its quality is unsurpassed, either in chemical purity or preservative qualities. Fishermen engaged extensively in their business, among the various fisheries of Michigan, after giving it a thorough trial, unite in pronouncing it "more economical, (in quantity required,) safer and better than the Onondaga fine salt." And for butter it has been thoroughly tested, and pronounced not at all inferior to the famous Ashton salt.

The annual consumption of salt in the United States for the year 1859, was estimated at 52½ pounds *per capita*, or, in the aggregate, about 30,692,000 bushels. Of this amount not quite 50 per cent is of domestic manufacture—the balance being an imported article. For a series of nine years, the following have been the movements of this commodity at Chicago :

	Receipts.	Shipments.		Receipts.	Shipments.
1852.barrels	92,907	59,338	1857.barrels	209,746	99,918
1853.....	86,309	38,785	1858.....	333,988	191,279
1854.....	176,526	91,534	1859.....	316,897	250,467
1855.....	170,638	107,993	1860.....	223,018	164,409
1856.....	184,834	82,601			

These figures will show at a glance the importance of the salt trade of the United States, and will make obvious at once why active measures should be taken to prove and develop all the true saliferous rocks within its borders.

If geological indications be not fallacious, Michigan has certainly the most magnificent salt basin upon the continent, east of the Mississippi. The basin extends from Grand Rapids, in Kent County, to Sanilac County and to an unknown distance toward the North. "Within this distance," says the State Geologist, "the area covered by the coal measures, may be taken as the area underlain by the saliferous strata of maximum productiveness." These strata are made up of a remarkable series of salt-bearing shales, with intercalated beds of gypsum and limestone, and with a maximum thickness, according to the authority above quoted, of 184 feet. None of the shales of this interesting series have been found to contain

organic remains, with the exception of some amount of comminuted carbonaceous matter. Besides this group of rocks the Onondaga salt group, (which in Michigan attains a thickness of only 37 feet, and which is, geologically speaking, much older than the salt group proper,) is thought to yield brine of a sufficient strength for manufacturing purposes.

The following wells are in operation throughout the State :

I. AT AND NEAR GRAND RAPIDS.

	Depth in feet
1. Grand Rapids Salt Manufacturing Company.....	410
2. Grand River " "	402
3. R. E. Butterworth " "	500
4. Indian Mill Creek " "	450
5. J. W. Windsor " "	446
6. Taylor " "	402

II. ON THE SAGINAW RIVER.

7. East Saginaw Salt Manufacturing Company, 1st well.....	669
8. East Saginaw " " 2d well.....	806
9. Saginaw City " "	600
10. Hall, Gilbert & Co., " "	350
11. Ward, Curtis & Co. " "	560
12. Litchfield & Co., " "	680
13. Portsmouth " "	667
14. Bag City " "	542

The first of these in the second division is manufacturing about one hundred barrels per diem.

The salt business of the Saginaw Valley was inaugurated by the East Saginaw Company. The brine yielded Dr. CHILTON of New York 1,416 grains of common salt in one wine pint. The well furnishes about 13,000 gallons of brine in 24 hours. Dr. C. H. POTTER, the Superintendent, thus describes the process of manufacture, employed at these works :

" We get a deposit of iron in our settling vats, first, by putting the brine into them heated, (running it through a heater,) and, second, by using on each 27,000 gallons a pailful of lime. We are trying experiments to settle with other materials. In the kettles we used alum for cleansing for a time, but recently, and since cold weather, we have used nothing. The chlorides can only be removed by bailing out the residum, after say the 5th to the 8th drawing of salt, when the bitter water accumulates to such an extent as to act on the iron of the kettle, and rust the brine and the salt. This course, of throwing out the bitter water, is adopted in Kenawha, Virginia, and Pomeroy, Ohio, where the brine resembles ours in chemical composition, and though an expensive one in loss of brine, seems the only one that is practicable. * * * The impurities remaining in our salt, after having been drawn from the kettles, are removed by drainage, being liquid almost entirely. This thorough drainage is the essential point in our manufacture."

The Superintendent of the Geological Survey of Michigan, in his first biennial report, makes the following estimate of the cost of production of one barrel of salt at Saginaw :

Fuel, hard and soft wood equally mixed.....	.155
Labor of six men, at \$1 per day.....	.150
Barrel of superior quality .....	.270
Packing.....	.025
Interest at 10 per cent on cost of boring.....	.104
Wear and tear at 5 per cent.....	.052
Total.....	.756

Aside from the cost of superintendence and incidentals, it does not appear how the aggregate can be materially increased, when the business is once fairly established. At the same time it must be admitted that is rather early in the history of an enterprise to venture upon calculations as to the ultimate minimum cost of the manufacture. As an existing fact, it should be borne in mind that, aside from the great expense attending the commencement of any manufacture, some new and economical chemical process for getting rid of the troublesome chloride of calcium, which exists in all brines, may be discovered, which will materially lessen the cost of production. The manufacture of salt in the State of Michigan is still in its infancy, and a most powerful competition is arrayed against it. Under such existing circumstances, the interest needs protection and assistance from the State, other than the present bounty upon the manufacture of salt. The most powerful incentive which could be given to its rapid progressive development, would be the discovery of some cheap method of getting rid of the annoying chloride of calcium, and this should not be left to the chances of private individual enterprise, but to the subject of research by competent parties appointed by the State.

LAKE SUPERIOR VS. CORNWALL.

The *Lake Superior Journal* gives the comparative statement of the product of ingot copper from the mines of Cornwall, England, and Lake Superior, taken from the report of the Joint Committee of the Senate and House of Representatives on Mines and Mining of the last Legislature :

PRODUCT OF THE CORNWALL COPPER MINES.

	Tons.		Tons.
1771.....	3,438	1822.....	7,757
1786.....	4,102	1857.....	13,644
1802.....	5,195	1858.....	13,255
1808.....	6,498	1859.....	13,245
1817.....	7,272	1860.....	13,212

PRODUCT OF THE LAKE SUPERIOR COPPER MINES.

In 1855, 910 pounds.

	Tons.		Tons.
1846.....	20	1854.....	1,611
1847.....	167	1855.....	5,237
1848.....	361	1856.....	4,008
1849.....	527	1857.....	4,031
1850.....	448	1858.....	4,031
1851.....	610	1859.....	4,071
1852.....	1,017	1860.....	5,440
1853.....	2,000	1861.....	7,450

STATISTICS OF POPULATION.

PAUPERS IN ENGLAND, SCOTLAND, AND IRELAND—1851 TO 1860.

A WRITER in the *Journal of the Statistical Society of London* furnishes us with some interesting data respecting pauperism in the United Kingdom, from which we have prepared the following :

The average population of the United Kingdom, during the ten years terminating in 1860, was 28,104,000; the average of the annual enumerations of paupers was 1,109,275 or 3.9 per cent. In England the population was 18,901,000; the paupers 892,671 or 4.7 per cent; in Scotland the population was 3,009,000;* the paupers 120,624 or 4.0 per cent; and in Ireland the population being 6,193,000; the paupers were 95,880 or 1.5 per cent. Thus the relative proportion on the population, was in England, 47; Scotland, 40; and, in Ireland, 15.

English pauperism is a time-honored institution, the growth of nearly three centuries; and Scotland, under its amended Poor Law, appears emulous of attaining to a scale of relief, which may pass unrebuked, by the side of the English expenditure. Ireland has been disburthened of its superfluous population by emigration. At the same time, it has been the good fortune of that country to have had its poor laws inaugurated and supervised by public servants, who were familiar with the English machinery; and who were well acquainted with the evils of a deep-rooted pauperism; and, with the practical benefits which the amendment of the poor laws in 1834 had conferred upon English rate-payers, and English laborers. The decline of Irish pauperism is still more remarkable, when we collate the numbers relieved in 1851 with those of 1860. In the former year the total was 226,452; and in the latter, 43,272. But, the pressure in Ireland, though great in 1851, was far below that experienced in the three previous years. The *maximum* of pauperism was attained in July, 1849, when 1,005,800, or 221,583 in-door, and 784,307 out door paupers were relieved.

In the practical management of the poor laws, the economists and the reformers have, with reason, regarded the system of "out-door relief" with great disfavor. This arises from two causes: one is the difficulty of testing the applicant's destitution; and the other, the fear that the rates may be diverted, in the hands of the employers of labor, to the depression of wages. A large ratio of out-door relief is regarded as the surest index of a badly managed Union, or Parish. In respect of Scotland the reports do not usually discriminate the in-door from the out-door paupers; this information, however, is given for 1859. The following comparison is therefore limited to that year :

* This estimate of the average of the Scotch population for the decennium, was made before the census of 1861 was published; it gives a higher figure than that enumeration warrants—consequently the ratio of pauperism, and the rate per head for relief, as represented in this paper, are somewhat lower for Scotland than they should be.

CENSUS OF PAUPERS, 1859.

	In-door.	Out-door.	Total.
England and Wales.....	121,232	744,214	865,446
Scotland	8,678	113,335	122,013
Ireland	40,369	1,248	41,617

Thus it appears that for one in-door pauper, England relieved 6.1 out-door; Scotland 13.1, and Ireland 0.03. Out-door relief was nearly extinct in the latter country.

As regards able-bodied pauperism, a comparison can only be made between England and Ireland, because the "able-bodied," as such, have no legal claim to relief in Scotland. According to the latest returns, there were in England, 132,120 adult able-bodied paupers; and in Ireland, of the same class, 7,927 only. These figures give a percentage on the population of .66 for the former, and .13 for the latter country; that is, as *five to one*. In this class the women are, in both countries, three times as numerous as the men. England, which has workhouse room for 218,000 inmates, does not use *one-thirteenth* part of it for the reception of adult able-bodied paupers; on the other hand, Ireland relieves *all* of that class in the workhouse; England gives out-door relief to *seven* adult able-bodied paupers, in respect of *one* in-door.

The remarkable contrast which Ireland offers to Scotland, has been commented upon in the Scotch Poor Law Reports, where the Scotch pauperism has been collated with that of Ulster and Connaught. The Scotch expenditure of relief has also been compared, by the Scotch Board, with the corresponding outlay in the northern and north-western divisions of England. Those districts of Ireland and of England were selected for comparison with Scotland, as affording great similarity, in their respective circumstances, apart from the existence of pauperism.

"In Scotland," observe the Commissioners, "out-door relief is the rule—relief in the poorhouse the exception—of 119,453 persons receiving relief in Scotland on the 14th May, 1857, only about 6,000, or little more than 1 in 20 of their number, were in poorhouses. Of 53,331 persons receiving relief at the same time in Ireland, only 944 received out-door relief, 52,387 were inmates of the workhouses. In Ireland relief in the workhouse, and only in the workhouse, is the rule—out-door relief the rare and special exception. To this broad difference in the conditions upon which relief can be obtained it is probable that the vast disparity in the ratio of pauperism to population ought mainly to be attributed."* The Commissioners further remark, that of the Irish population resident in Scotland, 1 in 13 is a *pauper*; but, that in Ireland, exclusive of the able-bodied, this class having no claim to relief in Scotland, the ratio is 1 in 274. It is unfortunate that a similar comparison cannot be made between the Irish at home, and the Irish in England.

The Scotch Commissioners return to the subject of this startling disparity, in their subsequent report. Their observations are so important, and bear so immediately upon the facts, that I cannot refrain from quoting the passage. "There are thus," they state, "in any given number of the population, more than 12 paupers in the Highland counties for every

* Thirteenth Annual Report of the Scotch Poor Law Board, p. 7.

1 pauper in Ulster and Connaught. For so vast a disparity there must be causes that are intelligible. * * * * Ten years ago it did not exist, and we must seek its causes in the changes that have taken place since that time. In the years from 1846 to 1849, the avidity to obtain eleemosynary aid was at least as great as general, and led to quite as many and as ingenious devices to secure it in Ireland as in the Highlands. The tendency to rely upon that description of assistance, though attempts were made to guard it by careful scrutiny, and the labor test was not checked in Ireland until the workhouse was available. The cruelty of resorting to that mode of relief was then denounced in terms of unmeasured severity; but those who look not to present popularity, but to the permanent welfare of the people, persevered; and it may be doubted whether there is now to be found one sincere friend of the laboring classes in Ireland who has intelligently considered the subject, and who believes that the industry, the self-reliance, and the power of self-maintenance now exhibited by the people of Ireland could have been developed as it has been in the last ten years if out-door relief had then been as easily obtained as it now is in the Highlands of Scotland; or who doubts that the people of Ireland have gained far more by this development than they could have gained by a system of out-door relief, which repressed the growth of those qualities and habits?"*

Those who are unacquainted with the subject of Scotch pauperism, will be surprised to find the degradation to which the population of the Highlands has sunk, in the course of a few years, under the blighting influence of an indiscriminate system of out-door relief. Strong evidence of the demoralizing effects of untested relief in that district, was given by Mr. BRISCOE to the Irish Poor Relief Committee of last session.

Mr. BRISCOE is officially connected with the Scotch Board, as general superintendent of the poor; and in that capacity has visited 10,000 registered poor (paupers,) or heads of families, at their own houses. He gave the committee a very long list of persons, who were improperly relieved; forcibly suggesting the abuses of the unreformed English poor laws; and, subsequently, to the question—"Then, the effect of this out-door relief has been very demoralizing, and has broken down the spirit of independence?" made this remarkable answer: "Not the least doubt about it; it has deteriorated to a considerable extent truth, industry, morality, self-respect, self-reliance, the natural affections, and independence of character; it appears as if the whole of the humbler classes had completely changed character; there is no shame whatever now in demanding relief, even among some of higher station. The state of things in the Highlands of Scotland is perfectly deplorable, and every person admits it."†

The rapid increase in the pauperism of Scotland is clearly due to the insufficient workhouse test of that country. It vividly recalls to mind a passage in Mr. TWISTLETON's dissent from the Report of her Majesty's Commissioners appointed in 1843 to inquire "into the administration and practical operation of the Poor Laws of Scotland." Mr. TWISTLETON was one of the Commissioner; and he brought to the consideration of the subject great knowledge of the actual working of the English Poor

* Fourteenth Report of Scotch Poor Law Board, p. 21.

† Report on Poor Relief, (Ireland) House of Commons, 1861, p. 369.

Laws. Mr. TWISTLETON's "Reasons of Dissent" are drawn up in eight Paragraphs. The following words form part of the sixth:—"But while I admit that the arrangement of various details may be safely vested in the managers of the poor in each particular town, it is my opinion that the *principles* of dealing with a subject so difficult as that of administering relief, should be settled by the more enlarged wisdom of Parliament. And a matter of such importance as the erection of poorhouses ought not to be dependent either on the honest judgment, or possible caprice, partial knowledge, or narrow views of accidental majorities in particular localities."*

After seventeen years' administration of their amended poor laws, the Scotch authorities have left four-fifth of their parishes unprovided with poorhouses. But, it is necessary to add, that the Commissioners anticipate an increase in the number, as seventy-seven parishes are taking steps to build new poorhouses. We add the following interesting tables:

STATEMENT OF THE AVERAGE NUMBER OF PAUPERS RELIEVED, IN THE UNITED KINGDOM, ON ONE DAY, IN EACH OF THE TEN YEARS, 1851 TO 1860, WITH THE RATIO OF PAUPERISM TO THE ESTIMATED POPULATION.

Years.	England and Wales.				Scotland.	
	In-door paupers.	Out-door paupers.	Total†	Per ct.	In-door and out-door.	Per ct.
1851	114,367	828,948	941,315	5.3	122,416	4.2
1852	111,323	804,352	915,675	5.0	117,693	4.0
1853	110,148	776,214	886,362	4.8	117,535	4.0
1854	111,635	752,982	864,617	4.6	120,626	4.1
1855	121,400	776,286	897,686	4.8	121,770	4.1
1856	124,879	792,205	917,084	4.8	121,522	4.0
1857	122,845	762,163	885,010	4.6	119,569	5.9
1858	122,613	786,287	908,886	4.7	123,191	4.0
1859	121,232	744,214	865,446	4.4	122,013	3.9
1860	113,507	731,126	844,633	4.3	120,906	4.0
Average.....	117,395	775,276	892,671	4.7	120,724	4.0

Years.	Ireland.				United Kingdom.	
	In-door paupers.	Out-door paupers.	Total‡	Per ct.	In-door and out-door.	Per ct.
1851.....	217,949	8,503	226,452	3.5	1,290,183	4.7
1852.....	167,372	3,225	170,597	2.6	1,203,965	4.4
1853.....	130,047	3,003	133,050	2.1	1,136,947	4.1
1854.....	95,922	1,622	97,544	1.5	1,082,787	3.9
1855.....	79,747	3,273	83,020	1.3	1,102,476	3.9
1856.....	63,477	876	64,353	1.0	1,102,959	3.9
1857.....	50,877	967	51,844	0.9	1,056,423	3.7
1858.....	45,781	1,271	47,052	0.8	1,079,129	3.8
1859.....	40,369	1,248	41,617	0.7	1,029,076	3.6
1860.....	41,271	2,001	43,272	0.7	1,008,811	3.5
Average.....	93,281	2,599	95,880	1.5	1,109,275	3.9

* Report of Her Majesty's Commissioners on Scotch Poor Laws, p. 66, 1844.

† England and Wales, exclusive of county and burrough pauper lunatics; this class has averaged latterly about 1,700.

‡ Ireland, exclusive of pauper lunatics maintained by the county cess; in 1857 this class was returned as 3,824.

STATEMENT OF SUMS EXPENDED IN RELIEF TO THE POOR IN THE UNITED KINGDOM, IN THE TEN YEARS FROM 1851-60; AND OF THE RATE PER HEAD OF EXPENDITURE.

Years.	England and Wales.			Scotland*.		
	Population.†	Relief to the poor.	Rate pr. head.	Population.	Relief to the poor.	Rate pr. head.
1851...	17,927,609	£4,962,704	5s 6½d	2,888,742	£524,033	3s 7½d
1852...	18,205,000	4,897,685	5 4½	2,916,000	522,209	3 7
1853...	18,402,000	4,989,064	5 4½	2,942,000	530,984	3 7½
1854...	18,617,000	5,282,853	5 8	2,969,000	562,888	3 9½
1855...	18,840,000	5,890,041	6 3	2,996,000	595,140	4 0
1856...	19,043,000	6,004,244	6 3½	3,023,000	619,196	4 1
1857...	19,207,000	5,898,756	6 1½	3,050,000	627,512	4 1½
1858...	19,361,000	5,878,542	6 ¼	3,077,000	633,533	4 1½
1859...	19,578,000	5,558,689	5 8½	3,103,000	637,612	4 2
1860...	19,837,000	5,454,964	5 6	3,130,000	654,527	4 2
Average.	18,901,761	54,767,542	5 9½	3,009,474	5,917,634	3 11½

Years.	Ireland.‡			United Kingdom.		
	Population.	Relief to the poor.	Rate pr. head.	Population.	Relief to the poor.	Rate pr. head.
1851...	6,552,386	£1,141,647	3s 5½d	27,368,737	£6,628,384	4s 10d
1852...	6,474,000	883,268	2 8½	27,595,000	6,308,162	4 5
1853...	6,396,000	785,718	2 5½	27,740,000	6,255,766	4 6
1854...	6,318,000	760,153	2 4¾	27,904,000	6,605,894	4 8½
1855...	6,240,000	685,259	2 2½	28,076,000	7,170,440	5 1
1856...	6,162,000	576,390	1 10½	28,228,000	7,199,830	5 ¾
1857...	6,844,000	498,889	1 7½	28,341,000	7,025,157	5 11½
1858...	6,006,000	457,178	1 6½	28,444,000	6,969,253	4 10½
1858...	5,928,000	413,712	1 4¾	28,609,000	6,620,013	4 7½
1860...	5,850,000	454,531	1 6½	28,817,000	6,564,022	4 6½
Average.	6,193,038	6,656,745	2 1¼	28,104,273	67,341,921	4 9½

BIRTHS, DEATHS, AND MARRIAGES IN ENGLAND AND WALES.

The civil registration of births, marriages, and deaths in England and Wales began on the 1st of July, 1827. By the end of last year, six months short of a quarter of a century, this astounding number of names had been registered and transmitted to Somerset House :

Persons married.....	7,086,700
Births.....	14,278,790
• Deaths.....	9,605,536
Total.....	30,791,026

* The expenditure of Scotland, as here given, is less by the "law expenses" and the cost of "general sanitary measures;" the corresponding items are excluded from the English returns.

† Estimated for 1852 to 1860, by the Board of Supervision; it is in excess of the truth, for the actual census of 1861 gives 3,061,251 as the number at the present time.

‡ The decrease in the population of Ireland has been assumed to follow at the same rate for each year.

THE BOOK TRADE.

The Golden Hour. By MONROE D. CONWAY, author of "*The Rejected Stone.*"
Boston: TICKNOR & FIELDS. For sale by D. APPLETON & Co.

This is a volume of considerable power, intensely anti-slavery, and well worth reading; for everything that can be said in favor of immediate and general emancipation is said here, and said well. There are admirable passages in the book, but it is spoilt as a whole by the bursts of personal prejudice which are scattered thickly through it. Animosity is *not* argument; indeed it repels conviction, and neutralizes the most eloquent appeal; the least appearance of prejudice in the assertions of an author or orator, arouses the contrary prejudice in the mind of every hearer, and entirely overthrows the end which might be accomplished by dispassionate, courteous reasoning. Of Mr. CONWAY's charges and insinuations against General McCLELLAN we say nothing, as they are too unmanly and ignoble to permit of refutation. These, with many other abusive portions, must be utterly expunged, before the book can even receive the attention which its decided merits have a right to demand.

The Flirt; or, Passages in the Life of a Fashionable Young Lady. By MRS. GREY, author of "*The Gambler's Wife*," "*The Duke and Cousin*," &c., &c. Philadelphia: T. B. PETERSON & BROTHERS. Price 50 cents.

Mrs. GREY has done an injustice to her work by giving it so very frivolous a name; one would suppose it to be the lightest and gayest of foolish fictions, when it is in fact a sober story, with a very sad moral, because a true one. The plot is interesting and the characters good.

The Works of Francis Bacon, Baron of Verulam, &c., &c. Collected and Edited by JAMES SPEDDING, ROBERT LESLIE ELLIS, and DOUGLAS DENON HEATH. Volume Fourth. Boston: BROWN & TAGGARD.

We have the pleasure of announcing the publication of another volume of this valuable work, from the press of Messrs. BROWN and TAGGARD. We have spoken so frequently of the worth of this edition, and of the fine style in which it is issued, that it would be mere repetition to comment again upon them. The present volume will probably prove of more general interest than some of its all-latin predecessors, as a large portion of it, (the *Natural History*,) is written in English, in BACON's own quaint and charming style.

1. *A Life's Secret; a Story of Woman's Revenge.* By MRS. HENRY WOOD, author of "*The Channings*," "*Earls' Heirs*," "*East Lynne*," &c., &c. Philadelphia: T. B. PETERSON & BROTHERS. Price 50 cents.

2. *The Channings.* A Domestic Novel of Real Life. By the same. Price 50 cents.

Mrs. WOOD has already achieved for herself a reputation as one of the best of sensation novelists; as such, she must of course rank far below those authors whose claims to fame, rest upon their excellence of style, their strength of thought or their accurate delineation of character. In her own province however, which belongs

strictly to the creation and development of plot, she is among the first. There is always a well-kept mystery in her works, skilfully worked out, and generally very sad. In the "Life's Secret," for instance, where very worthy people are kept very wretched from the beginning to the end, the cause of all their woe is so utterly needless, that we think the majority of readers will be more pained than pleased by the perusal of it. The "Channings" is a different sort of book, having a great deal to say about boy life in a Cathedral town, and will probably be more generally liked than the former.

The Indian Scout; or, Life on the Frontier. By GUSTAVE AIMARD, author of "*The Flower of the Prairie*," "*The Trail Hunter*," "*The Gold Seekers*," &c., &c. Philadelphia: T. B. PETERSON & BROTHERS. Price 50 cents.

This is a story of Indian and Mexican life on the prairies, and is full of wild adventures. It is said that AIMARD has lived for years among the savages, as the adopted son of a very powerful Indian tribe; that he has been through every phase of prairie life, having been in turn, hunter, trapper, squatter, gold-seeker, warrior, guide, and scout. If this be true, his narratives should have a zest and vigor that nothing less than personal experience could give them.

Love's Labor Won. By MRS. E. D. E. N. SOUTHWORTH, author of "*The Lost Heiress*," "*The Missing Bride*," "*The Curse of Clifton*," &c., &c. Philadelphia: T. B. PETERSON & BROTHERS. Price, paper, \$1 00; in cloth, \$1 25.

We consider this as the best of MRS. SOUTHWORTH's recent productions. The story hinges upon an unfortunate clandestine marriage, which involves the heroine in a series of distressing embarrassments. Such an affair, must of course, produce in a romance, as in real life, at the least, confusion, mystery, and suspicion, if not worse results. The plot is exceedingly interesting, and the characters, particularly those of MARGUERITE, HELMSTEDT, and CORNELIA very vivid and life-like. The whole story is a startling picture of the lifelong misery entailed upon the participators in one deliberate act of folly and deception, and is as instructive morally, as it is entertaining.

The Two Prima Donnas; a Novel of Real Life. By GEORGE AUGUSTUS SALA, author of "*The Seven Sons of Mammon*," "*Twice Round the Clock*," &c., &c. Philadelphia: T. B. PETERSON & BROTHERS. Price 25 cents.

MR. SALA is already well known as a very entertaining writer, and the present work will tend to confirm this reputation. It is a very pretty story, simple in plot, but cleverly told. If the book had no other merit, it would be worth while to read it, for the sole purpose of making the acquaintance of the childlike and charming old Abbé Guillemot.

THE MERCHANTS' MAGAZINE

AND
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THE
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AND
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SEPTEMBER, 1862.  
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SALT MANUFACTURE OF THE SAGINAW VALLEY, MICHIGAN.

THE Saginaw River is formed by the confluence of the Cass, Shiawassee, and Tittabawassee rivers. It flows by a slightly serpentine course a little east of north, and empties into Saginaw Bay of Lake Huron. Measured by its meanderings it is about twenty-three miles in length, and in a straight line about twenty and one-half miles. A government lighthouse stands at its confluence with the bay. A bar is found across the mouth, but the entrance to the river is not difficult for vessels of large size, which find sufficient water for safe navigation as far as East Saginaw; while small steamboats ascend to St. Charles, on the Shiawassee river, ten miles above the head of the Saginaw. The principal villages on the immediate banks of the river are East Saginaw, Saginaw City, and Bay City. The latter village is situated on the right bank, between four and five miles from its mouth. A small settlement on the opposite bank, one mile nearer the bay, has been named Bangor. Portsmouth adjoins Bay City, and the two villages actually form but one, stretching along the river for the distance of two miles and three-quarters. Zilwaukie is a small settlement on the west bank of the river, fifteen and three-fourths miles from the mouth. Two miles higher up, on the same side, is Carrolton, another nucleus of population; while East Saginaw, with a population of 4,000, lies on the east bank of the river, about eighteen and one-half miles from its mouth. Salina bears the same relation to this place as Portsmouth does to Bay City. Opposite Salina is Saginaw City, the oldest settlement, and the one second in importance on the river.

Above Saginaw City, the immediate vicinity of the river to its head is occupied by a marsh. The same is true of the interval between Zilwaukie and Portsmouth, as well as most of the region below Bay City.

Aside from the marshes just mentioned, the banks of the river are elevated two to ten feet above the water at ordinary stage and very little of it is subject to overflow. The soil is black, deep, loomy, and inexhaustibly fertile; being covered, in a state of nature, with a heavy growth of maple, beech, ironwood, elm, ash, and whitewood. The climatic conditions are favorable to the growth of all ordinary farming and garden crops. On the 18th of July, Indian corn in the vicinity of Bay City was fully twice the size of the same crop in Genesee, Oakland, Wayne, and Washtenaw counties. The country back from the river on both sides, possesses a similar character as far as Tuscola, in Tuscola County, and Midland City, in Midland County. Much of this land, strange to say, is still in the hands of the government—so deeply seated has been the early misconception of the agricultural capabilities of this region. German and other settlers, however, are rapidly coming in.

The principal economical interest of the Saginaw Valley, has been, from the beginning, its lumber. At the present time there are about forty-five mills upon the river, capable of manufacturing 125,000,000 feet of lumber per annum, and actually turning out an average production of 90,000,000 feet. Besides this, the shingle trade amounts to about \$60,000 per annum, and the stave business to about \$70,000 per annum.

The salt manufacture of the Saginaw Valley, though but two years from its incipency, is already rivaling the lumber interest, and promises in a few years to become the leading commercial interest of the lower peninsula; if it does not even supercede the manufacture of this article in other States. This announcement will arouse the reader's incredulity; but we leave it on record, and abide the test of events. Our object is to direct attention to the actual state of the case.

The existence of salt springs at numberless points in the lower peninsula of Michigan, has been known from its earliest settlement; and here, as in other States, the Indians, no less than the elk and the deer, supplied their wants from the natural salines. Numerous reservations of lands supposed to contain salt springs, had, at an early day, been made by the United States; and several unsuccessful attempts had been made by individuals to manufacture salt. Michigan was admitted into the Union in 1836, with the privilege of selecting 72 sections of salt spring lands. In 1837 she had organized a Geological Commission for the development of her mineral resources, with Dr. DOUGLASS HOUGHTON at its head. One of the first objects contemplated by the Legislature which organized the survey, as well as by the superintendent himself, was the determination of definite facts in reference to the value and distribution of the salt springs of the State. Accordingly, about two-thirds of the State Geologist's first annual report, dated January 28, 1838, was devoted to an exposition of the results of his observations upon the brine springs of the State, made during the previous year. He found the salines of the State distributed into five groups: First, those upon the Grand River, near Grand Rapids; second, those on Maple River, in Gratiot County; third, those on the Tittabawassee River, in Midland County; fourth, those of Macomb County; fifth, those on Saline River, in Washtenaw County. No saline indications of importance were known south of a line drawn from Monroe to Grand Rapids. Dr. HOUGHTON gave analyses of twenty samples of brine from as many different localities within the State. These localities were generally on marshes, circumstanced

similarly to the salines of New York, or on the immediate banks of streams, subject more or less to overflow. As the result of the observations of this year, Dr. HOUGHTON advanced the opinion, that the brine supplied at the surface, at any of the localities examined, would prove too weak and too limited in quantity to justify the expectation of remunerative manufacture. At the same time, he announced "a general resemblance between the geology of the valley of the Ohio and that of Michigan," and stated his belief that "the rock-formations of our saliferous district are somewhat lower in the series than those occurring in the principal salines on the Ohio;" and from this inferred—with what reason I do not perceive—"that the salt-bearing rock would lie nearer the surface here" than in Ohio. The similarity of circumstances attending the occurrence of brine springs in Michigan and Ohio, led him to advance the opinion, that in this State, as well as Ohio, success might follow the boring of Artesian wells to the salt rock.

This report led, in March, 1838, to the passage of "An act for the improvement of the State salt springs," directing the State geologist to proceed to make explorations by boring at one or more suitable points; and appropriating \$3,000 to defray expenses.

On the 1st of January, 1839, the State geologist reported that he had visited the various salines of Pennsylvania, Virginia, and Ohio, with the view of collecting information to guide his procedure, and had commenced the sinking of two *shafts*—one on the Tittabawassee near the mouth of Salt River, and the other on the Grand River about three miles west from Grand Rapids. Before the close of the month, the Legislature made further special provision for the prosecution of these two enterprises. The work, however, was conducted under great difficulties. The surface materials were first penetrated on the Tittabawassee by a shaft eight feet square, to the depth of forty-five feet, when the fresh and brackish water overpowered the pumps, and an attempt was made to sink a drill at a neighboring point. From May to November, 1841, the drill penetrated but 139 feet, when a rock was struck, (supposed by Dr. HOUGHTON to be quartzite,) which the drill entered but half an inch in eleven hours, though loaded with a weight of 270 pounds. At this obstacle the work was abandoned.

The well on the Grand river was begun in July, 1838, and finished in 1842, at the depth of 473 feet.

In these two costly and protracted experiments no brine was obtained materially better than that previously occurring at the surface.

In the meantime, in January 1840, Hon. LUCIUS LYON of Grand Rapids, began boring for salt at a point near Bridge Street bridge in that village, (now city,) and by July 1841, had penetrated to a depth of 661 feet. From this well was an enormous flow of brackish water, amounting to one hoghead per minute; and by means of an ingenious contrivance, brine was brought up unmixed with the flow of fresh water, which proved to be one-fifth saturated—or at least equal in strength to brine at that time used on the Kanawha and Ohio Rivers. With salt selling at \$3 per barrel, Mr. LYON was enabled to manufacture a limited amount without loss. The want of brine of adequate strength, however, led to an early suspension of the business.

After the failures of 1838–42, the "Salt Spring Lands" came into the market as little superior to ordinary agricultural lands. In 1849, (March

28,) on the organization of the State Normal School, twenty-five sections were set apart for the creation of a Normal School fund, at the minimum price of four dollars an acre for the unimproved lands; and in 1855, (February 12,) twenty-two sections were set apart for the endowment of an Agricultural College.

A lingering belief yet survived, however, that Michigan was still destined to become a salt producing State; and citizens of Grand Rapids, still remembering how near to the verge of success Mr. LYON had reached, seriously agitated the resumption of explorations. Through the personal exertions of Dr. GEORGE A. LATHROP, of East Saginaw, and JAMES SCRIBNER, Esq., and others, of Grand Rapids, the Legislature of 1859, was induced to enact a bill, offering ten cents a bushel for all salt made from brine obtained by boring within the State, and exempting from taxation all property employed in the manufacture—the bounty to be paid when not less than 5,000 bushels should have been manufactured. About the same time (February 15) an act was passed initiating a geological survey of the State.

Boring was commenced in April of the same year at East Saginaw, by the East Saginaw Salt Manufacturing Company, and in August, at Grand Rapids, by JAMES SCRIBNER & Co.

In the meantime, the superintendent of the geological survey just organized, was prosecuting a reconnaissance of the southern portion of the State. A careful study and collation of the various outcrops of rock led to a determination of the nature, thickness, and superposition of the strata underlying the lower peninsula; and thus, for the first time, supplied the basis of an intelligent prosecution of explorations for salt. The cause of previous failures was now apparent.

Dr. HOUGHTON does not seem to have attained to a full understanding of the nature and disposition of the rocks of the lower peninsula. The opinion prevailed at that day (see Report, 1839, p. 9) that the strike of the rocks was northeast and southwest across the peninsula; that Saginaw bay occupies a denuded space along the outcrop of "the sandstone" just where it comes in contact with "the limestone of the north;" that the coal on the Illinois river is in the strike of the coal bearing rocks of Michigan, and the galeniferous limestone of Wisconsin and Illinois a prolongation of "a portion of the rock formation" which occurs in the northern part of Michigan. It was further supposed by Dr. HOUGHTON that the brines of the State rise to the surface through fissures in the strata overlying the salt rock, (see Report, 1838, p. 21; also Special Report, 1839, pp. 2 and 3.) and that the geological positions of the State wells on the Tittabawassee and Grand rivers were about the same, (Special Rep., 1839, p. 6.) while the latter was at least 360 feet below the former, and separated from it by the whole thickness of the coal measures. There seemed also to be vague ideas afloat of an "upper" and "lower salt rock."

Observations made in 1859 led to the discovery and announcement, for the first time, that below the carboniferous limestone of Michigan occurs a series, 180 feet thick, of argillaceous shales, clays, magnesian limestones, and beds of gypsum; and that here is truly the origin of the brine. The strike of the outcropping edges of these strata describes an irregular circle, enclosing all the central portion of the State. The Michigan salt group of rocks underlies 17,000 square miles, in the form of a vast reservoir, constituting the most magnificent saliferous basin on the

continent. The edges are sufficiently elevated to prevent the efflux of water which finds its way into it, and hence the saline particles have never been washed away. Beneath this series of shales is a porous sandstone—the Napoleon sandstone—which, within the circumference of the basin, becomes saturated with brine from above. From the nature of the case, it is evident that the strongest brine must accumulate in the deepest part of the basin. This, from various indications, seems to be the northeast of its center in the vicinity of the confluence of the Cass, Shiawassee, and Tittabawassee rivers.

This disposition of the strata of the State being ascertained, it appears that the salt springs at Grand Rapids, and in Macomb and Washtenaw counties are located upon the rim of the salt basin; and are caused by a trifling overflow of its contents in a position where the brine must necessarily be much diluted with surface water. The State salt well at Grand Rapids was bored upon the thinning-out edge of the saliferous strata, so that the Napoleon sandstone was found but feebly impregnated; and below this, the deeper the well was extended, the further it departed from the object of its search. The State well on the Tittabawassee, happening to be located far within the basin, would undoubtedly have eventuated in success, had the person holding the contract for boring possessed sufficient skill to enable him to get through the quartzose boulders at the bottom of the drift.

Mr. SCRIBNER's well at Grand Rapids, having reached the Napoleon sandstone, furnished a supply of brine of strength a little better than had been obtained by Mr. LYON; but the price of salt did not enable him to prosecute the manufacture with profit, although a fine brush house was erected through which the water was passed previous to boiling. The well, in short, like previous ones, was too near the margin of the basin. Predicted failure accordingly followed the half dozen other attempts made the following season at Grand Rapids and its vicinity. These failures were little ameliorated by the hopeless pursuit of that *ignis fatuus*, the "lower salt rock," which was sought in almost every case, some hundreds of feet below the real saliferous horizon, (see *Hubbard's Geology*, Rep. 1840, p. 140.)

Meantime, the well at East Saginaw reached the solid rock at the depth of 92 feet, and after passing through the coal measures, with their terminal and initial sandstones, pierced the carboniferous limestone, and found the Michigan salt group of strata 169 feet thick and eminently saliferous. In the Napoleon sandstone beneath, 109 feet thick, the reservoir of the brine was struck, and a supply, abundant in quantity, and of 90° strength, was obtained at almost exactly the point which geology had predicted. This well was 669 feet deep, terminating near the middle of the sandstone. Another was subsequently bored, 806 feet deep, extending through the sandstone and penetrating the underlying shales 64 feet.

This decided success was attained early in 1860. By July of that year a "block" had been erected and boiling commenced. Before the close of the year 4,000 barrels of salt had been manufactured, and no less than four other companies had commenced boring at different points along the river.

The generous bounty of ten cents per bushel, granted by the Legislature of 1859, created just alarm in the minds of the *retrenchment* Legislature of 1861, and the bounty law was so modified as to apply only to

works where the manufacture commenced before the first day of August, 1861; the bounty was reduced to ten cents a barrel, and was made payable after 3,000 bushels should have been manufactured; it was also provided that no company should receive more than \$1,000, and the term of exemption from taxation was restricted to five years.

The following is a statement of the strata passed through in the salt wells of the Saginaw valley, grouped and named in accordance with the Geological Reports made to the governor, December 31st, 1860:

1. Alluvial and drift materials, consisting of sand, clay, and boulders ... feet	100
2. "Woodville sandstone," brown and coarse	65
3. Coal measures, consisting of shales, with some sandstones, limestones, and coal	130
4. "Parma sandstone," white and porous	115
5. Carboniferous limestone, often highly arenaceous	75
6. "Michigan salt group," consisting of argillaceous, pyritous, and gypseous shales, their beds of arenaceous and magnesian limestone and thick beds of gypsum	170
7. "Napoleon sandstone," light buff, coarse	110
Total	765

The foregoing table exhibits the average thickness of the strata in the vicinity of East Saginaw. From a point near the center of the city, the rocks appear to dip both toward the north and the south; so that the total depth of wells four miles south is about 810 feet, while in the vicinity of Bay City the bottom of the Napoleon sandstone is found at a depth of 1,000 feet and over.

The strata of the Michigan salt group outcrop toward the northeast at the mouth of Pigeon river and in Tawas bay, on opposite shores of Saginaw bay. It is an unexpected result, therefore, to find the saliferous basin depressed 200 feet deeper at points ten or fifteen miles nearer its margin. This local northern depression is filled by an extraordinary thickening of the shales of the coal measures. At the same time the underlying "Parma sandstone" is found charged with a brine of great purity, and of a density of 60° to 84° of the salometer. Persons engaged in boring on the lower river, therefore, mistaking this saliferous sandstone for the one encountered at East Saginaw and vicinity, suspended their operations at this horizon; and up to the present time manufacturers in the lower part of the valley have derived their supplies of brine from this source. It is only the result of a recent examination of specimens of the borings of these wells, and comparison of statements of well-borers, that this important conclusion has been fully decided upon; and we have the peculiar satisfaction of learning, while penning this article, that one well on the lower river, having been sunk to the depth of 916 feet, has just struck upon the true Napoleon sandstone, at the depth of 54 feet, in which a brine has been brought up *fully saturated*.

It may not be uninteresting to observe that the Parma sandstone seems to be the equivalent of the carboniferous "conglomerate" of Ohio, which constitutes the reservoir of the brine supplying the wells of the Ohio and Kanawha rivers. It constitutes, moreover, the third or uppermost saliferous horizon known to exist in Michigan—that of the Onondaga salt group being the lowest. This recent discovery, moreover, discloses the probability that in the deeper portions of the general basin, the coal measures

may be found similarly expanded in thickness, and the Parma sandstone similarly salt-bearing. I look for these results from the head of Saginaw river, west and northwest into Gratiot and Midland counties.

The following analyses will exhibit the strength and purity of Saginaw brines in comparison with those of other salt producing regions:

	Saginaw City.	East Saginaw.	Bay City.	Syracuse, N. Y.	Kanawha, Va.
Specific Gravity.....	1,180	1,170	1,163	1,142	1,073
Chlorid of Sodium.....	19,246	17,912	19,692	17,690	7,309
Chlorid of Calcium.....	2,395	2,142	0,742	0,156	1,526
Chlorid of Magnesium.....	1,804	1,522	0,433	0,119	0,374
Sulphate of Lime.....	0,534	0,116	0,145	0,572	....
Sulphate of Soda.....	....	....	0,116	....	....
Compounds of Iron.....	0,064	0,105	....	0,002	....
Other constituents.....	0,127	0,220	0,018	....	....
Total solid matter in 100 parts	24,170	22,017	21,140	18,540	9,209

The analyses of Saginaw City brine was made by Prof. Du Bois, of the University of Michigan, but the amount of iron and lime (if any) precipitated from the brine when received, was not weighed. The analyses of East Saginaw brine was performed by Prof. S. H. DOUGLASS; that of the Bay City brine, by JAS. R. CHILTON & Co.; that of Syracuse brine, by Prof. L. R. BECK, and that of Kanawha brine, by Prof. GEO. H. COOK.

As pure saturated brine has a specific gravity of 1,205, and contains 25.7 per cent of saline matter, it appears that the Saginaw brines approximate remarkably near to saturation.

The following table exhibits further comparisons:

Localities.	Weight of one gall. of brine.	Solid matter in one gall.	Pure salt in one gall.	Galls. re- quired for 1 bu. salt.
Saginaw City.....lbs.	9.858	2.38	1.90	29
East Saginaw.....	9.775	2.15	1.75	32
Bay City.....	9.716	1.95	1.82	31
Syracuse.....	9.541	1.76	1.63	33
Kanawha.....	9.464	0.94	0.75	75

The above figures show a greater difference between the brines of Saginaw City and East Saginaw than is likely to exist between two points less than four miles apart; but I have been obliged to adhere to the alleged results of chemical investigations. It should also be remarked that the mean density of the brine now used at the Onondaga works does not quite come up to the standard of the sample analysed by Prof. BECK, many years since, the results of which are quoted in the foregoing table.

From these comparative exhibits it is at once clear that a gallon of the brine from the Saginaw valley contains more pure salt than a gallon of the brine employed at either of the two principal centers of manufactures for the United States. It has been insisted by parties interested in rival localities that, in spite of the strength of Saginaw brine, the presence of a considerable percentage of chlorids of calcium and magnesium must materially interfere with success in the manufacture of salt from it. Upon these objections, which are purely theoretical, and fathered perhaps by a wish, we have three remarks to make:

1. Whatever may be said of the brine from the Napoleon sandstone, that from the Parma sandstone—if we may depend upon the analysis—is the purest in the United States.

2. The Saginaw brine, showing the highest per centage of bitter chlorids, contains relatively less than the brine of the Kanawha, which is accepted as affording powerful competition, in all respects, with the manufacture at Syracuse, and, indeed, is generally admitted to be a better preservative of meats.

3. At all events, the manufacture of salt in the Saginaw valley is succeeding *as a matter of fact*; and, as a matter of fact, the product is admitted *by all authorities* to be at least equal to that from any other source. The evidences will be presented in the sequel.

It is now but two years since the first salt was manufactured in Saginaw valley; yet it is estimated that in this time the value of real estate has increased to the extent of three and a half millions of dollars in the counties of Bay and Saginaw. At Carrolton, grounds suitable for salt lots, which, two years ago were bought for \$20 an acre, are now held at \$300 and \$400 per acre. At Saginaw City, salt lands have risen from \$30 to \$200 and \$300 an acre. Wood lands, from one to eight miles west and north of Saginaw City, which, as late as 1861, sold for \$15 and \$20 per acre, are now selling for \$40 and \$45 per acre. At Bay City, the increased valuation has been similar. And this is but the first impression of the creation of this new branch of industry in what is generally regarded as a Michigan wilderness.

There are five methods employed, or about to be employed, in the Saginaw valley for the evaporation of brine:

1. By means of artificial heat in iron kettles, on the Syracuse plan.
2. By solar evaporation in the open air, also according to the Syracuse method.
3. A modification of the methods employed on the Kanawha thirty years ago.
4. A modification of the method at present in use on the Kanawha.
5. A new method patented by NATHAN CHAPIN of Michigan.

In the boring of the wells of the Saginaw valley, steam power is always used, and the tools and details of the process are similar to those employed in Ohio and Virginia. The boring is generally done by contract. The price per foot two years ago was \$3; at the present time it is \$2, and I see no reason why the price should not be reduced to \$1.50 per foot for wells not over 900 feet deep, since the engine—the only costly part of a well-borer's outfit—is furnished by the employer. The well is bored of an enlarged diameter, and tubed as far as the "bed rock." Beyond this, a diameter of 3½ to 5 inches is the usual capacity. On the completion of the boring to the requisite depth, the hole is tubed with iron to some point below the place of influx of fresh water. This is generally the carboniferous limestone; and here some sort of packing is introduced around the tube for the purpose of shutting off communication between the inside and outside of the tube. The strong brine rises to within 5 to 10 feet of the surface, and sometimes overflows—in one instance rising in a tube as high as 17 feet. In all cases,

however, a pump is introduced into the well for the purpose of securing an adequate supply.

The actual capacity of one of these wells has never yet been very accurately ascertained. The supply from the two wells of the East Saginaw M. Co. is estimated at 45,000 gallons per day. The Bay City salt well, 3½ inches in diameter, is stated to be capable of supplying three blocks, while the Portsmouth well, 4 inches in diameter, will supply four blocks of 60 kettles each. At the Bay City well, one cistern-full of about 21,000 gallons is used in thirty-eight hours on three blocks. This is 13,260 gallons in twenty-four hours, and for four blocks would be 17,680 gallons. At the Portsmouth well, where the salometer stands 60°, a cistern holding 26,000 gallons is said to be filled in ten hours, which is over 62,000 gallons in twenty-four hours.

An engine with an 8-inch cylinder and 16 inches stroke is adequate for all the work of boring and pumping.

The water is pumped at an expense of about three cents per barrel of salt, into vats or cisterns elevated about five feet, and having generally a capacity of 20x30 feet and 6 feet deep, holding consequently about 26,000 wine gallons each. Two of these vats are requisite for each block. In the cisterns, the water is allowed five or six days to settle—that is for the iron to be precipitated—a process which is generally facilitated by sprinkling in the brine a small quantity of strong limewater.

The kettles are arranged in two close parallel rows, and supported by walls of brick and stone, forming an arch with a longitudinal partition—or more properly two arches, in the mouths of which the fires are built. A chimney, from 50 to 100 feet high, rises at the back extremity of the arches, and thus the heat is made to pass under each kettle of the double series. The arches are enclosed in a house 120 feet by 40, or thereabouts, with a shed running the whole length of each side, divided into large bins for the reception of the salt. At the Bay City works the bins occupy a separate building, into which the salt is wheeled and emptied. This arrangement permits an opening to run the whole length of the block on each side, for the admission of air to drive the steam from over the kettles.

After settling, the brine is conveyed into the boiling-house in logs, which run along the arch above the kettles, resting on the middle wall which separates them; and from these logs supplies are drawn as needed, into the kettles.

It may be of interest to note that kettles are now manufactured at Bay City, by a firm recently from Chatham, Canada West.

The fuel employed is generally a mixture of hard and soft kinds, for prices varying from \$1 31 to \$1 50 per cord. Hard wood, consisting of maple, beech, hickory, ironwood, and birch, is exclusively employed at the East Saginaw works, and costs delivered \$1 75 per cord. One block, including the engine, consumes about six cords of hard wood, or six and a-half cords of mixed wood, in twenty-four hours.

The brine, of course, evaporates much the most rapidly in the front kettles, immediately over the fire. These have to be filled once in three to five hours, and the back ones once in fifteen to twenty-four hours. Settling pans are introduced into kettles just filled, for the purpose of receiving any impurities precipitated by the application of heat. Occasionally milk, blood, or some other animal substance is employed to promote the clearing of the brine. Generally, also, some skimming is needed; and the more when the

brine is purified in the manner just mentioned. The contents of the kettles are reduced by boiling to one-fourth or one-fifth the original quantity, when the salt, crystallized and fallen to the bottom, is transferred to baskets supported over the kettles, where it is allowed to drain.

The baskets at first used were of the Syracuse pattern; but these being found too small, a new style, patented by a Michigan man, and of larger size, is now generally employed. These cost forty cents each.

The baskets of salt, when moderately drained, are emptied into the bins, where the salt lies fourteen days to complete the drainage.

In the mean time, the kettle is replenished with brine and the same process is repeated. After a kettle has been boiled down two, three, or more times, the accumulation of biterms needs to be thrown out. Some prefer to do this after every kettle-full. The biterms are thrown into a conduit which runs at a convenient distance, and are thus carried out of the block.

The work is thus prosecuted day and night for the period of two to five weeks—the boilers and firemen succeeding each other in relays every twelve hours. At the end of this time the rapid evaporation and great heat of the front kettles has caused an incrustation to be formed upon the bottom from one to two inches in thickness. This must be removed, or it acts as a false bottom, permitting an interval to form between it and the kettle, thus rendering the bottom of the kettle liable to be melted out. In the Syracuse works this crust contains so much gypsum as not to be readily soluble, and is picked out with iron tools, to the great danger of the kettles. In the Saginaw works the crust is almost pure salt, and is at once loosened and removed by the simple introduction of fresh water, which is obtained from a second set of logs introduced for the purpose. The fires are permitted to go down on Saturday night. During Sunday the arches cool. On Monday any needed repairs are attended to, and on Monday night the fires are rekindled.

The amount of salt produced in twenty-four hours from a block of a given number of kettles, varies with the strength of the brine, the state of the atmosphere, the quality of the fuel, and the attention of the firemen. At Portsmouth, in good summer weather, 40 barrels are made per day from 50 kettles. The works at Saginaw City make 50 barrels a day from 60 kettles; at East Saginaw, 50 barrels from 50 kettles; at the Carrolton Mill Co.'s works, 55 barrels from 58 kettles. These estimates are for the season. At Bay City, 60 barrels are made per day of running time from 50 kettles. At this latter works, 50 baskets of salt—that is, the salt from 50 kettles-full of brine—measured 36 barrels, which is almost three-fourths of a barrel of salt for every kettle-full of brine. Winter weather causes a diminution of 17 to 20 per cent in the product of the works.

The packing of the salt is done for three cents a barrel. The barrels used cost from twenty-four to twenty-six cents—the price varying with the quality. Elm barrels with pine heads are generally employed; but at some of the works pine is used exclusively. These barrels are manufactured in stave and barrel factories operating in the vicinity, and are admitted to be a superior article for salt packing. No objection exists against elm staves, provided they are cut narrow; otherwise they are somewhat liable to warp, on exposure to the weather, and might in some cases endanger the package. The tidy appearance of the packages of Saginaw salt has everywhere recommended it to notice.

The solar manufacture is yet in its inception. The East Saginaw Co. have 20 solar vats in operation; and the prospects of success in this method of manufacture are so great that 500 additional vats and covers have been constructed, making a total outlay in the coarse salt manufacture of \$8,500. Five hundred barrels have been produced.

The Saginaw Valley Co., at Saginaw City, are erecting a block on a modification of the present Kanawha plan of evaporation. The principal modification consists in the use of "alloy metal," instead of copper, for the steam pipes, and the employment of fresh water to furnish the requisite amount of steam for heating the brine. The necessity for this, it is thought, grows out of the superior strength of Saginaw brine. The reader will find a description of the Kanawha method by Prof. GEORGE H. COOK, in the "Report of the Superintendent of the Onondaga Salt Springs," made to the Legislature, in February, 1854.

WM. C. GILMORE, on the east side of the river and about two miles below Bay City, is erecting a block on a modification of the old Kanawha method, in which the brine, after being settled in cisterns, is to be heated in a pan over the front of the arch, thence passed into a long tank traversed by steam pipes, in which much of the graining is expected to take place, and is thence transferred to pans or kettles for completion of the crystallization.

At the works of the Ann Arbor and Saginaw Company, at Salina, an experiment is making with the patented process of Mr. NATHAN CHAPIN. A vat is constructed of any desired size—say 40 x 50 feet, and four feet deep, which may be called the condensing or settling vat. Within this is placed a graining vat in the form of an inverted roof, extending the whole length of the former vat, but with a width about four feet less on each side, and rising to within a few inches of the top of the former one. Partitions, like bulkheads, divide the condensing vat into about four compartments, which communicate with each other at alternate ends. Three flues are constructed in this apparatus—one in the middle running the whole length of the graining vat, and one on each side running through the condensing vat. The anterior section of each flue is of boiler iron, the remainder, of "alloy metal." The flues are for the fire and smoke, and will be constantly immersed. The brine is to be admitted at one of the front corners, and the bulkheads are so arranged as to cause it to flow backwards and forwards transversely, until it completes the circuit of the condensing vat, by which time it is expected to be settled and brought to the point of saturation. This result is designed to be attained by the time the brine has risen to the level of the graining vat, into which it will then begin to flow, to undergo the process of crystallization. The bitters are expected to be drawn off from the surface of the graining vat.

This process is said to have been employed on a small scale with great success. It seems to me, temporary disappointment will result from two causes. The heat employed to do the graining should be to that which brings the brine to saturation as two to one, instead of *vice versa*, as Mr. CHAPIN has it. In the next place, the bitters will not be found floating on the surface in the graining vat, but will be somewhat equally diffused throughout the brine. This will necessitate an occasional clearing of the graining vat.

The method of boiling in kettles is evidently too primitive and wasteful of heat to be tolerated by an inventive people. Immense quantities of

caloric are transmitted from the arches to the ground and entirely lost. In CHAPIN's method the heat is conducted in every direction only into the brine. If he could now devise some means to utilize the steam, the economy of caloric would be complete. In the opinion of the writer, steam pipes might be made to replace the two flues in the condensing vat, and fuel employed—but in redoubled amount—only in the graining vat. We wait with interest to learn whether Mr. CHAPIN's process is destined to turn the old potash kettles on their sides.

In the process of boiling in kettles, two firemen and two boilers are required for each block—the firemen relieving each other at intervals of 12 hours, as also the boilers. At some of the works it is in contemplation to let the boiling—which can be done for ten cents a barrel—the company furnishing the fuel. This method, while it would increase the quantity of salt produced, might somewhat endanger its excellence. Under the present arrangement, boilers are paid \$1 75 per day, and firemen \$1. The wages of an engineer are \$1 50 per day, and of common hands \$1.

The average diurnal product of a block of sixty kettles is not less than fifty-five barrels a day for the summer season. This, for 180 days, amounts to 9,900 barrels. Supposing that for the other 180 days of the year—allowing a loss of five days—the product is but eighty-two per cent of this amount, we shall have as the annual production of one block, 18,000 barrels, which is a diurnal production of 50 barrels for 360 days of the year. This would be the full capacity of one block, where the brine ranges from 78° to 85°.

The total amount of fine salt manufactured in the Saginaw Valley up to the 1st of July of the current year was, as shown by the appended table, nearly 100,000 barrels. At the present time, the number of blocks in actual operation is 22, with an aggregate of 1,187 kettles. Several of these blocks have started within a few days. There are, besides, four or five new blocks just ready to go into operation, to say nothing of the three blocks nearly completed for evaporation, by the Kanawha and CHAPIN process. If the 22 blocks now in operation succeed in maintaining the standard of productiveness established by the old ones, they are turning out daily 1,210 barrels, which, making an allowance for the check of winter, amounts to 396,000 barrels or 1,980,000 bushels annually. This is not a calculation of what the Saginaw works are *expected* to do; it is what they are doing at this moment; and shows a growth at the end of two years from the production of the first bushel of salt, equal to that attained by the Onondaga salt works in 1834, at the end of 38 years from the time the salt springs passed under the superintendence of the State. But it is not necessary to pause here. Within thirty days, or by September 1st, not less than four additional blocks will come into operation, raising the daily production to 1,300 barrels, and the annual production to 468,000 barrels or 2,340,000 bushels—a result only reached by the Onondaga salt works less than twenty-five years ago.

It is evident that such an astonishing development of a new branch of local industry could never occur unless it held out the promise of extraordinary remunerativeness. Let us look at this subject. The cost of a suitable lot will vary with its location and extent. Something must also be expended for docks and piers. The following are the other fixed expenditures:

Drill or well house.....	\$175
Engine for boring and pumping.....	750
Tubing.....	800
Drums and blacksmith's tools.....	50
Boring eight hundred feet at \$2.....	1,600

Total for well..... \$3,375

Suppose this to be increased to.....	\$4,000
Cisterns and block of sixty kettles.....	3,000

Total..... \$7,000

It is believed that this sum covers all expenditures necessary at the present time, for getting one block of kettles into operation. More than this has been expended by many, and perhaps most of the companies now engaged in the manufacture; but mistakes have occurred through inexperience, and many expedients have been tested before the best methods and details have been discovered. But suppose the expense of lot, wharfage, and other items raises the above sum to \$9,000. The annual deterioration of this property does not exceed four per cent, or \$360—which is two cents per barrel of salt. At Syracuse, experiments have determined that one cord of hard wood will produce fifty-three bushels of salt. This economy in the use of fuel has not been reached as yet, at Saginaw. At the East Saginaw works $6\frac{1}{2}$ cords of hard wood are used daily to produce fifty barrels of salt, which is one cord for forty bushels. I am convinced, however, that here is a waste of fuel, due perhaps to a faulty construction of the flues. At Bay City seven cords of wood, in which the soft is to the hard as one to two, produce daily sixty barrels or forty-three bushels to the cord. Taking the facts as they stand, $6\frac{1}{2}$ cords of mixed wood at \$1 50 per cord produce fifty barrels daily, the year through; which is one cord for thirty-nine bushels. The cost of the fuel for one barrel of salt is, therefore, \$0.199. The wages of two firemen and two boilers are \$5.50 per day. Add to this the wages of one engineer, (who can do the pumping for *four* blocks,) and the element of labor entering into the cost of a barrel of salt in the bins is \$0.14.

Collecting together now the various elements which enter into the prime cost of a barrel of salt, we have the following exhibit:

Labor of five men in pumping and boiling.....	\$0.140
Fuel of mixed quality.....	0.199
Barrel of superior quality.....	0.250
Packing.....	0.030
Deterioration of property.....	0.020
Total.....	\$0.639

When salt is selling at \$1 50 per barrel, here is a profit of eighty-six cents per barrel, which is 134 per cent on the first cost. This is 95 per cent when the price of salt is \$1 25, and 48 per cent when the price of salt is at the cost of manufacture at Syracuse; so that Syracuse capital

would be better employed in buying Saginaw salt than in producing it on the spot.

The above estimated profits might be somewhat diminished by expense of superintendence, office rent, hauling the wood up to the blocks, and perhaps some other incidentals. The main result, however, astonishing as it is, cannot be materially affected by controversy. When it is remembered that the cost of a barrel of salt at Syracuse is at least 95 cents, and on the Kanawha 90 cents, the reader will begin to perceive the grounds of an opinion advanced near the commencement of this article.

The only question which remains, and one upon which the predicted growth of the manufacture must depend, is that which respects the quality of Saginaw salt. There is no corner on which our predictions rest with greater security. The appearance of a pile of Saginaw salt is that of driven snow glistening in the morning sun. The grain is coarse, clean, and angular; the taste purely saline and unexceptionable, and the weight is $58\frac{1}{2}$ pounds to the measured bushel. Letters and documents are in the hands of the manufacturers proving that the acceptance of Saginaw salt is such that the market is literally clamorous for an adequate supply. It would occupy too much space to make many citations. The "Mechanics' Institute, of Chicago," the New York State Agricultural Society, (at Elmira,) and the "Mechanics' Association, of Utica," have severally awarded the salt of the East Saginaw Company their highest testimonials. HARVEY WILLIAMS, Esq., one of the oldest and most extensive fish packers on the lakes, certifies: "My experience and observation lead me to the opinion that the salt manufactured by your company is purer, stronger, safer, and more economical for fishermen than the Syracuse fine salt." He also names several other parties who have used the salt for fish packing with the same results. In Detroit, this salt is ranked equal to any, and is very often called for in preference to Syracuse salt. The annual statement of the *Trade and Commerce* of Toledo, says: "We are led to the conclusion that eventually all the beef, pork, &c., packed west of Lake Erie, will be laid down in Saginaw salt." DOW, QUIRK & Co., of Chicago, think Saginaw salt "superior to any that comes to this market." Large quantities of this salt are now sold in London, C. W., whence it is distributed through the province. St. Louis and Cincinnati also take large supplies; and the demand, at all these points, is far more than can be furnished.

I close this article with the following table of such works as are either in operation or nearly ready to go into operation. The values of the various works (with a few exceptions) are ascertained by estimating a site at \$1,000; a well at 4,000, and one block at \$4,000.

The well No. 7 is not tubed, and the works are not at present in progress. No. 11 has, in addition, one block on a modification of the present Kanawha method. No. 16 has one block on a modification of the old Kanawha method; and No. 12 has a block on the CHAPIN method. The East Saginaw Company has two wells, and has expended \$8,500 for 520 covers. The Saginaw Valley Company has eight covers, and the Bay City Company a small number:

STATISTICS OF THE SALT MANUFACTURE IN THE SAGINAW VALLEY, MICHIGAN.

Style of Company.	Location of well.	When begun.	Diap. in feet.	Began boiling.	No. Nocks.	No. kettles	Pine New salt making made per to July 1. day. lbs. cwt. works.	Value of	Resident officer.
1. East Saginaw Salt Manufacturing Co.	East Saginaw,	April, 1859,	806 3½	July, 1860,	4	200	40,000	200	H. C. Potter, M. D., E. Saginaw
2. Carrolton Salt Co.	Carrolton,	May, 1860,	759 8½	July, 1861,	1	50	6,500	50	J. S. Ourla, M. D., E. Saginaw.
3. Saginaw City Salt M'g Co.	Saginaw City,	1st June, 1860,	809 4	May 23, 1861,	2	180	15,000	100	Newell Barnard, Saginaw City
4. Bay City Salt M'g Co.	Bay City,	June, 1860,	708 3½	Oct. 14, 1861,	2	150	9,500	58	James Fraser, Bay City.
5. Portmouth Salt M'g Co.	Portmouth,	July, 1860,	667 4	July 23, 1861,	1	50	7,000	40	James Fraser, Bay City.
6. J. H. Hill.	Opp. East Saginaw,	July, 1860	725 ..	.....	..	..	..	..	..
7. Saginaw Valley Salt M'g Co.	Carrolton,	January, 1861,	769 ..	July, 1861,	2	120	6,300	80	Jas. H. Hill, East Saginaw.
8. Davis & Co.	Zilwaukee,	September, 1861,	..	.....	2	150	..	..	E. E. Smith, East Saginaw.
9. Carrolton Mill Salt Co.	Carrolton,	9th December, 1861,	753 4½	June, 1861,	2	116	13,000	110	William Davis, E. Saginaw.
10. Hayden & Co.	Portmouth,	30th December, 1861,	490 4½	July, 1862,	1	55	..	..	John Allison, East Saginaw.
11. Forest Valley Salt M'g Co.	Saginaw City,	1st January, 1862,	830 3½	April 1, 1862,	1	60	8,500	..	W. D. Leavitt, Saginaw City.
12. Ann Arbor & Saginaw Salt M'g Co.	Salina,	10th February, 1862,	806 4½	.....	1	58	..	..	..
13. Rust & Co.	Salina,	25th February, 1862,	..	.....	..	..	..	..	..
14. Payne & Briggs.	East Saginaw,	12th March, 1862,	731 ..	.....	..	..	..	..	..
15. Orange County Salt Co.	Carrolton,	19th March, 1862,	760 ..	July 17, 1862,	3	150	..	..	Jas. L. Ketchum E. Saginaw.
16. Wm. C. Gilmore.	Bay City,	March, 1862,	508 3½	.....	..	..	..	..	Wm. C. Gilmore, Bay City.
17. E. T. Throop.	Carrolton,	April, 1862,	..	July, 1862,	2	110	..	..	E. T. Throop, East Saginaw.
18. D. H. Fitzhugh.	Opp. Portmouth,	16th May, 1862,	..	.....	2	100	..	..	F. Fitzhugh, Bay City.
19. A. C. Braddock.	Portmouth,	May, 1862,	602 3½	July, 1862,	2	110	..	..	James Braddock, Bay City.
20. N. W. Clarke & Co.	Ranger,	June, 1862,	..	.....	..	..	..	..	Henry Moore, Bay City.
21. Braloy & Eaton.	East Saginaw,	7th July, 1862,	..	.....	..	..	..	..	..
22. Van Etten & Merhob.	Opp. Portmouth,	July, 1862,	..	.....	2	100	..	..	..
23. William Tallman.	Opp. Portmouth,	Supply for Nov., 1862,	..	.....	1	50	..	..	..
					23		97,800	250,000	

EXCISE TAX.

THE following is an official copy of the new Tax Bill with an index. As this measure affects almost every mercantile transaction, we believe we cannot do our subscribers a better service than by giving it to them complete. August 1st is the date set in the bill for the act to take effect, but by a joint resolution, the Secretary is authorized to name any subsequent day not later than the first of October. Notice has been given that the date fixed is the first day of September :

AN ACT TO PROVIDE INTERNAL REVENUE TO SUPPORT THE GOVERNMENT
AND TO PAY INTEREST ON THE PUBLIC DEBT.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That, for the purpose of superintending the collection of internal duties, stamp duties, licenses, or taxes imposed by this act, or which may be hereafter imposed, and of assessing the same, an office is hereby created in the Treasury Department to be called the office of the Commissioner of Internal Revenue : and the President of the United States is hereby authorized to nominate, and, with the advice and consent of the Senate, to appoint, a Commissioner of Internal Revenue, with an annual salary of four thousand dollars, who shall be charged, and hereby is charged, under the direction of the Secretary of the Treasury, with preparing all the instructions, regulations, directions, forms, blanks, stamps, and licenses, and distributing the same, or any part thereof, and all other matters pertaining to the assessment and collection of the duties, stamp duties, licenses, and taxes which may be necessary to carry this act into effect, and with the general superintendence of his office, as aforesaid, and shall have authority, and hereby is authorized and required, to provide proper and sufficient stamps or dies for expressing and denoting the several stamp duties, or the amount thereof in the case of percentage duties, imposed by this act, and to alter and renew or replace such stamps from time to time, as occasion shall require ; and the Secretary of the Treasury may assign to the office of the Commissioner of Internal Revenue such number of clerks as he may deem necessary, or the exigencies of the public service may require, and the privilege of franking all letters and documents pertaining to the duties of his office, and of receiving free of postage all such letters and documents, is hereby extended to said commissioner.

GENERAL PROVISIONS.

SEC. 2. *And be it further enacted,* That, for the purpose of assessing, levying, and collecting the duties or taxes hereinafter prescribed by this act, the President of the United States be, and he is hereby, authorized to divide, respectively, the States and Territories of the United States and the District of Columbia into convenient collection districts, and to nominate, and, by and with the advice and consent of the Senate, to appoint an as-

essor and a collector for each such district, who shall be residents within the same: *Provided*, That any of said States and Territories and the District of Columbia may, if the President shall deem it proper, be erected into and included in one district: *Provided*, That the number of districts in any State shall not exceed the number of representatives to which such State shall be entitled in the present Congress, except in such States as are entitled to an increased representation in the Thirty-Eighth Congress, in which States the number of districts shall not exceed the number of representatives to which any such State may be so entitled: *And provided, further*, That in the State of California the President may establish a number of districts not exceeding the number of senators and representatives to which said State is entitled in the present Congress.

SEC. 3. *And be it further enacted*, That each of the assessors shall divide his district into a convenient number of assessment districts, subject to such regulations and limitations as may be imposed by the Commissioner of Internal Revenue, within each of which he shall appoint one assistant assessor, who shall be resident therein; and each assessor and assistant assessor so appointed, and accepting the appointment, shall, before he enters on the duties of his appointment, take and subscribe, before some competent magistrate, or some collector, to be appointed by virtue of this act, (who is hereby empowered to administer the same,) the following oath or affirmation, to wit: "I, A B, do swear, or affirm, (as the case may be,) that I will bear true faith and allegiance to the United States of America, and will support the Constitution thereof, and that I will, to the best of my knowledge, skill, and judgment, diligently and faithfully execute the office and duties of assessor for, (naming the assessment district,) without favor or partiality, and that I will do equal right and justice in every case in which I shall act as assessor." And a certificate of such oath or affirmation shall be delivered to the collector of the district for which such assessor or assistant assessor shall be appointed. And every assessor or assistant assessor acting in the said office without having taken the said oath or affirmation shall forfeit and pay one hundred dollars, one moiety thereof to the use of the United States, and the other moiety thereof to him who shall first sue for the same, with costs of suit.

SEC. 4. *And be it further enacted*, That before any such collector shall enter upon the duties of his office, he shall execute a bond for such amount as shall be prescribed by the Commissioner of Internal Revenue, under the direction of the Secretary of the Treasury, with not less than five sureties to be approved as sufficient by the Solicitor of the Treasury, containing the condition that said collector shall faithfully perform the duties of his office according to law, and shall justly and faithfully account for and pay over to the United States, in compliance with the order or regulations of the Secretary of the Treasury, all public moneys which may come into his hands or possession; which bond shall be filed in the office of the First Controller of the Treasury. And such collectors shall, from time to time, renew, strengthen, and increase their official bond, as the Secretary of the Treasury may direct.

SEC. 5. *And be it further enacted*, That each collector shall be authorized to appoint, by an instrument of writing under his hand, as many deputies as he may think proper, to be by him compensated for their services, and also to revoke any such appointment, giving such notice thereof as the Commissioner of Internal Revenue shall prescribe; and may require bonds or

other securities and accept the same from such deputy; and each such deputy shall have the like authority, in every respect, to collect the duties and taxes levied or assessed within the portion of the district assigned to him which is by this act vested in the collector himself; but each collector shall, in every respect, be responsible both to the United States and to individuals, as the case may be, for all moneys collected, and for every act done as deputy collector by any of his deputies whilst acting as such, and for every omission of duty: *Provided*, That nothing herein contained shall prevent any collector from collecting himself the whole or any part of the duties and taxes so assessed and payable in his district.

SEC. 6. *And be it further enacted*, That it shall be the duty of any person or persons, partnerships, firms, associations, or corporations, made liable to any duty, license, stamp, or tax imposed by this act, when not otherwise and differently provided for, on or before the first day of August, eighteen hundred and sixty-two, and on or before the first Monday of May in each year thereafter, and in all other cases before the day of levy, to make a list or return to the assistant assessor of the district where located, of the amount of annual income, the articles or objects charged with a special duty or tax, the quantity of goods, wares, and merchandise made or sold, and charged with a specific or *ad valorem* duty or tax, the several rates and aggregate amount according to the respective provisions of this act, and according to the forms and regulations to be prescribed by the Commissioner of Internal Revenue, under the direction of the Secretary of the Treasury, for which such person or persons, partnerships, firms, associations or corporations are liable to be assessed under and by virtue of the provisions of this act.

SEC. 7. *And be it further enacted*, That the instructions, regulations, and directions, as hereinbefore mentioned, shall be binding on each assessor and his assistants, and on each collector and his deputies, in the performance of the duties enjoined by or under this act; pursuant to which instructions the said assessors shall, on the first day of August, eighteen hundred and sixty-two, and on the first Monday of May in each succeeding year, and from time to time thereafter, in accordance with this act, direct and cause the several assistant assessors to proceed through every part of their respective districts, and inquire after and concerning all persons being within the assessment districts where they respectively reside, owning, possessing, or having the care or management of any property, goods, wares, and merchandise, articles or objects liable to pay any duty, stamp or tax, including all persons liable to pay a license duty, under the provisions of this act, (by reference as well to any lists of assessment or collection taken under the laws of the respective States, as to any other records or documents, and by all other lawful ways and means, especially to the written list, schedule, or return required to be made out and delivered to the assistant assessor by all persons owning, possessing, or having the care or management of any property, as aforesaid, liable to duty or taxation,) and to value and enumerate the said objects of taxation, respectively, in the manner prescribed by this act, and in conformity with the regulations and instructions before mentioned.

SEC. 8. *And be it further enacted*, That if any person owning, possessing, or having the care or management of property, goods, wares, and merchandise, articles or objects liable to pay any duty, tax, or license, shall fail to make and exhibit a written list when required, as aforesaid, and shall

consent to disclose the particulars of any and all the property, goods, wares, and merchandise, articles and objects liable to pay any duty or tax, or any business or occupation liable to pay any license, as aforesaid, then, and in that case, it shall be the duty of the officer to make such list, which, being distinctly read, consented to, and signed, by the person so owning, possessing, or having the care and management as aforesaid, shall be received as the list of such person.

SEC. 9. *And be it further enacted*, That if any such person shall deliver or disclose to any assessor or assistant assessor appointed in pursuance of this act, and requiring a list or lists, as aforesaid, any false or fraudulent list or statement, with intent to defeat or evade the valuation or enumeration hereby intended to be made, such person so offending, and being thereof convicted on indictment found therefor in any circuit or district court of the United States held in the district in which such offence may be committed, shall be fined in a sum not exceeding five hundred dollars, at the discretion of the court, and shall pay all costs and charges of prosecution; and the valuation and enumeration required by this act shall, in all such cases, and in all cases of under valuation or under statement in such lists or statements, be made, as aforesaid, upon lists, according to the form prescribed, to be made out by the assessors and assistant assessors, respectively; which lists the said assessors and assistant assessors are hereby authorized and required to make according to the best information they can obtain, and for the purpose of making which they are hereby authorized to enter into and upon all and singular the premises respectively; and from the valuation and enumeration so made there shall be no appeal.

SEC. 10. *And be it further enacted*, That in case any person shall be absent from his or her place of residence at the time an assistant assessor shall call to receive the list of such person, it shall be the duty of such assistant assessor to leave at the place of residence of such person, with some person of suitable age and discretion, if such be present, otherwise to deposit in the nearest post office a written note or memorandum, addressed to such person, requiring him or her to present to such assessor the list or lists required by this act within ten days from the date of such note or memorandum.

SEC. 11. *And be it further enacted*, That if any person, on being notified or required, as aforesaid, shall refuse or neglect to give such list or lists within the time required, as aforesaid, it shall be the duty of the assessor for the assessment district within which such person shall reside, and he is hereby authorized and required, to enter into and upon the premises, if it be necessary, of such persons so refusing or neglecting, and to make, according to the best information which he can obtain, and on his own view and information, such lists of property, goods, wares, and merchandise, and all articles or objects liable to duty or taxation, owned or possessed, or under the care or management of such person, as are required by this act, including the amount, if any, due for license; and in case of refusal or neglect to make such lists, except in cases of sickness, the assessors shall thereupon add fifty per centum to the amount of the items thereof; and the lists, so made and subscribed by such assessor, shall be taken and reputed as good and sufficient lists of the persons and property for which such person is to be taxed for the purposes of this act; and the person so failing or neglecting, unless in case of sickness or failure to receive the notice, shall, moreover, forfeit and pay the sum of one hundred dollars, except where

otherwise provided for, to be recovered for the use of the United States, with costs of suit.

SEC. 12. *And be it further enacted*, That whenever there shall be in any assessment district any property, goods, wares, and merchandise, articles, or objects, not owned or possessed by, or under the care or management of any person or persons within such district, and liable to be taxed as aforesaid, and no list of which shall have been transmitted to the assistant assessor in the manner provided by this act, it shall be the duty of the assistant assessor for such district, and he is hereby authorized and required, to enter into and upon the premises where such property is situated, and take such view thereof as may be necessary, and to make lists of the same, according to the form prescribed, which lists, being subscribed by the said assessor, shall be taken and reputed as good and sufficient lists of such property, goods, wares, and merchandise, articles, or objects, as aforesaid, under and for the purposes of this act.

SEC. 13. *And be it further enacted*, That the owners, possessors, or persons having the care or management of property, goods, wares, and merchandise, articles or objects, not lying or being within the assessment district in which they reside, shall be permitted to make out and deliver the lists thereof required by this act, (provided the assessment district in which the said objects of duty or taxation are situated is therein distinctly stated,) at the time and in the manner prescribed to the assistant assessor of the assessment district wherein such persons reside. And it shall be the duty of the assistant assessor who receives any such list, to transmit the same to the assistant assessor where such objects of taxation are situate, who shall examine such list; and if he approves the same, he shall return it to the assistant assessor from whom he received it, with his approval thereof; and if he fails to approve the same, he shall make such alterations therein as he may deem to be just and proper, and shall then return the said list, with such alterations therein or additions thereto, to the assistant assessor from whom he received the said list; and the assistant assessor, where the person liable to pay such tax resides, shall proceed in making the assessment of the tax upon the list by him so received, in all respects as if the said list had been made out by himself.

SEC. 14. *And be it further enacted*, That the lists aforesaid shall, where not otherwise specially provided for, be taken with reference to the day fixed for that purpose by this act, as aforesaid, and where duties accrue at other and different times, the lists shall be taken with reference to the time when said duties become due; and the assistant assessors, respectively, after collecting the said lists, shall proceed to arrange the same, and to make two general lists—the first of which shall exhibit, in alphabetical order, the names of all persons liable to pay any duty, tax, or license under this act residing within the assessment district, together with the value and assessment, or enumeration, as the case may require, of the objects liable to duty or taxation within such district for which each such person is liable, or for which any firm, company, or corporation is liable, with the amount of duty or tax payable thereon; and the second list shall exhibit, in alphabetical order, the names of all persons residing out of the collection district, owners of property within the district, together with the value and assessment or enumeration thereof, as the case may be, with the amount of duty or tax payable thereon as aforesaid. The forms of the said general list shall be devised and prescribed by the assessor, under the direction of the Commis-

sioner of Internal Revenue, and lists taken according to such forms shall be made out by the assistant assessors and delivered to the assessor within thirty days after the day fixed by this act as aforesaid, requiring lists from individuals; or where duties, licenses, or taxes accrue at other and different times, the lists shall be delivered from time to time as they become due. And if any assistant assessor shall fail to perform any duty assigned by this act within the time prescribed by his precept, warrant, or other legal instructions, not being prevented therefrom by sickness or other unavoidable accident, every such assistant assessor shall be discharged from office, and shall, moreover, forfeit and pay two hundred dollars, to be recovered for the use of the United States, with costs of suit.

SEC. 15. *And be it further enacted*, That the assessors for each collection district shall, by advertisement in some public newspaper published in each county within said district, if any such there be, and by written or printed notifications, to be posted up in at least four public places within each assessment district, advertise all persons concerned of the time and place within said county when and where the lists, valuations, and enumerations made and taken within said county may be examined; and said lists shall remain open for examination for the space of fifteen days after notice shall have been given as aforesaid. And said notifications shall also state when and where within said county, after the expiration of said fifteen days, appeals will be received and determined relative to any erroneous or excessive valuations or enumerations by the assistant assessors. And it shall be the duty of the assessor for each collection district, at the time fixed for hearing such appeal as aforesaid, to submit the proceedings of the assistant assessors, and the lists taken and returned as aforesaid, to the inspection of any and all persons who may apply for that purpose. And the said assessor for each collection district is hereby authorized, at any time within fifteen days from and after the expiration of the time allowed for notification as aforesaid, to hear and determine, in a summary way, according to law and right, upon any and all appeals which may be exhibited against the proceedings of the said assistant assessors: *Provided*, That the question to be determined by the assessor, on an appeal respecting the valuation or enumeration of property, or objects liable to duty or taxation, shall be, whether the valuation complained of be or be not in a just relation or proportion to other valuations in the same assessment district, and whether the enumeration be or be not correct. And all appeals to the assessor, as aforesaid, shall be made in writing, and shall specify the particular cause, matter, or thing respecting which a decision is requested; and shall, moreover, state the ground or principle of inequality or error complained of. And the assessor shall have power to re-examine and equalize the valuations as shall appear just and equitable; but no valuation or enumeration shall be increased without a previous notice, of at least five days, to the party interested, to appear and object to the same, if he judge proper; which notice shall be given by a note in writing, to be left at the dwelling-house, office, or place of business of the party by such assessor or an assistant assessor.

SEC. 16. *And be it further enacted*, That the said assessors of each collection district, respectively, shall, immediately after the expiration of the time for hearing appeals, and, from time to time, as duties, taxes, or licenses become liable to be assessed, make out lists containing the sums payable according to the provisions of this act upon every object of duty or taxation in and for each collection district, which lists shall contain the name of each

person residing within the said district, owning or having the care or superintendence of property lying within the said district which is liable to the said tax, or engaged in any business or pursuit requiring a license, when such person or persons are known, together with the sums payable by each; and where there is any property within any collection district liable to the payment of the said duty or tax, not owned or occupied by or under the superintendence of any person resident therein, there shall be a separate list of such property, specifying the sum payable, and the names of the respective proprietors, where known. And the assistant assessor making out any such separate list shall transmit therefrom to the assistant assessor, where the persons liable to pay such tax reside or shall have their principal place of business, copies of the list of property held by persons so liable to pay such tax, to the end that the taxes assessed under the provisions of this act may be paid within the collection district where the persons liable to pay the same may reside, or may have their principal place of business. And in all other cases the said assessor shall furnish to the collectors of the several collection districts, respectively, within ten days after the time of hearing appeals, and from time to time thereafter as required, a certified copy of such list or lists for their proper collection districts; and in default of performance of the duties enjoined upon assessors by this section, they shall severally and individually forfeit and pay the sum of five hundred dollars to the use of the United States, and, moreover, shall forfeit their compensation as assessors: *Provided*, That it shall be in the power of the Commissioner of Internal Revenue to exonerate any assessor, as aforesaid, from such forfeitures, in whole or in part, as to him shall appear just and equitable.

SEC. 17. *And be it further enacted*, That there shall be allowed and paid to the several assessors and assistant assessors, for their services under this act—to each assessor three dollars per day for every day employed in making the necessary arrangements and giving the necessary instructions to the assistant assessors for the valuation; and five dollars per day for every day employed in hearing appeals, revising valuations, and making out lists agreeably to the provisions of this act; and one dollar for every hundred taxable persons contained in the tax list, as delivered by him to said collectors, and forwarded to the Commissioner of Internal Revenue; to each assistant assessor three dollars for every day actually employed in collecting lists and making valuations, the number of days necessary for that purpose to be certified by the assessor and approved by the Commissioner of Internal Revenue; and one dollar for every hundred taxable persons contained in the tax list, as completed and delivered by him to the assessor. And the said assessors and assistant assessors, respectively, shall also be allowed their necessary and reasonable charges for stationery and blank books used in the execution of their duties, and the compensation herein specified shall be in full for all expenses not otherwise particularly authorized: *Provided*, The Secretary of the Treasury shall be, and he is hereby, authorized to fix such additional rates of compensation to be made to assessors and assistant assessors in the States of California and Oregon and the Territories as may appear to him to be just and equitable, in consequence of the greater cost of living and traveling in those States and Territories, and as may, in his judgment, be necessary to secure the services of competent and efficient men, provided the rates of compensation thus allowed shall not exceed the rates paid to similar officers in such States and Territories, respectively. In cases

where a collection district embraces more than a single congressional district, the Secretary of the Treasury may allow the assessor such compensation as he may deem necessary.

Sec. 18. *And be it further enacted*, That each collector, on receiving a list, as aforesaid, and from time to time as such lists may be received from the said assessors, respectively, shall subscribe three receipts; one of which shall be given on a full and correct copy of such list, which list shall be delivered by him to, and shall remain with, the assessor of his collection district, and shall be open to the inspection of any person who may apply to inspect the same; and the other two receipts shall be given on aggregate statements of the lists aforesaid, exhibiting the gross amount of taxes to be collected in his collection district, one of which aggregate statements and receipts shall be transmitted to the Commissioner of Internal Revenue, and the other to the First Controller of the Treasury; and all lists received from time to time, as aforesaid, shall be in like form and manner transmitted as aforesaid.

Sec. 19. *And be it further enacted*, That each of said collectors shall, within ten days after receiving his annual collection list from the assessors, respectively, as aforesaid, give notice, by advertisement published in each county in his collection district, in one newspaper printed in such county, if any such there be, and by notifications to be posted up in at least four public places in each county in his collection district, that the said duties have become due and payable, and state the time and place within said county at which he will attend to receive the same, which time shall not be less than ten days after such notification; and all persons who shall neglect to pay the duties and taxes so as aforesaid assessed upon them, to the collector within the time specified, shall be liable to pay ten per centum additional upon the amount thereof, the fact of which liability shall be stated in the advertisement and notifications aforesaid. And with regard to all persons who shall neglect to pay, as aforesaid, it shall be the duty of the collector, in person or by deputy, within twenty days after such neglect, to make a demand personally, or at the dwellings or usual places of business of such persons, if any they have, for payment of said duties or taxes, with the ten per centum additional aforesaid. And with respect to all such duties or taxes as are not included in the annual lists aforesaid, and all taxes and duties the collection of which is not otherwise provided for in this act, it shall be the duty of each collector, in person or by deputy, to demand payment thereof, in manner aforesaid, within ten days from and after receiving the list thereof from the assessor; and if the annual and other duties shall not be paid within ten days from and after such demand thereof, it shall be lawful for such collector or his deputies to proceed to collect the said duties or taxes, with ten per centum additional thereto, as aforesaid, by distraint and sale of the goods, chattels, or effects of the persons delinquent, as aforesaid. And in case of such distraint, it shall be the duty of the officer charged with the collection to make, or cause to be made, an account of the goods or chattels which may be distrained, a copy of which, signed by the officer making such distraint, shall be left with the owner or possessor of such goods, chattels, or effects, or at his or her dwelling, with some person of suitable age and discretion, with a note of the sum demanded, and the time and place of sale; and the said officer shall forthwith cause a notification to be published in some newspaper within the county wherein said distraint is made, if there is a newspaper published in said county, or to be publicly posted

up at the post office, if there be one within five miles, nearest to the residence of the person whose property shall be distrained, and in not less than two other public places, which notice shall specify the articles distrained, and the time and place for the sale thereof, which time shall not be less than ten nor more than twenty days from the date of such notification, and the place proposed for sale not more than five miles distant from the place of making such distraint: *Provided*, That in any case of distraint for the payment of the duties or taxes aforesaid, the goods, chattels, or effects so distrained shall, and may be restored to the owner or possessor, if prior to the sale payment of the amount due, or tender thereof shall be made to the proper officer charged with the collection of the full amount demanded, together with such fee for levying, and such sum for the necessary and reasonable expense of removing, advertising, and keeping the goods, chattels, or effects so distrained as may be prescribed by the Commissioner of Internal Revenue; but in case of non-payment or tender, as aforesaid, the said officers shall proceed to sell the said goods, chattels, or effects at public auction, and shall and may retain from the proceeds of such sale the amount demandable for the use of the United States, with the necessary and reasonable expenses of distraint and sale, and a commission of five per centum thereon for his own use, rendering the overplus, if any there be, to the person whose goods, chattels, or effects shall have been distrained: *Provided*, That there shall be exempt from distraint the tools or implements of a trade or profession, one cow, arms, and provisions, and household furniture kept for use, and apparel necessary for a family.

SEC. 20. *And be it further enacted*, That in all cases where the property liable to distraint for duties or taxes under this act may not be divisible, so as to enable the collector by a sale of part thereof to raise the whole amount of the tax, with all costs, charges, and commissions, the whole of such property shall be sold, and the surplus of the proceeds of the sale, after satisfying the duty or tax, costs, and charges, shall be paid to the owner of the property, or his, her, or their legal representatives, or if he, she, or they cannot be found, or refuse to receive the same, then such surplus shall be deposited in the treasury of the United States, to be there held for the use of the owner, or his, her, or their legal representatives, until he, she, or they shall make application therefor to the Secretary of the Treasury, who, upon such application, shall, by warrant on the treasury, cause the same to be paid to the applicant. And if the property advertised for sale, as aforesaid, cannot be sold for the amount of the duty or tax due thereon, with the costs and charges, the collector shall purchase the same in behalf of the United States for an amount not exceeding the said tax or duty, with the costs and charges thereon. And all property so purchased may be sold by said collector under such regulations as may be prescribed by the Commissioner of Internal Revenue. And the collector shall render a distinct account of all charges incurred in the sale of such property, and shall pay into the treasury the surplus, if any there be, after defraying the charges.

SEC. 21. *And be it further enacted*, That in any case where goods, chattels, or effects sufficient to satisfy the duties imposed by this act upon any person liable to pay the same shall not be found by the collector or deputy collector, whose duty it may be to collect the same, he is hereby authorized to collect the same by seizure and sale of real estate; and the officer making such seizure and sale shall give notice to the person whose estate is pro-

posed to be sold, by giving him in hand, or leaving at his last and usual place of abode, if he has any such within the collection district where said estate is situated, a notice, in writing, stating what particular estate is proposed to be sold, describing the same with reasonable certainty, and the time when and place where said officer proposes to sell the same; which time shall not be less than ten nor more than twenty days from the time of giving said notice; and the said officer shall also cause a notification to the same effect to be published in some newspaper within the county where such seizure is made, if any such there be, and shall also cause a like notice to be posted up at the post office nearest to the place of residence of the person whose estate shall be so seized, and in two other public places within the county; and the place of said sale shall not be more than five miles distant from the estate seized. At the time and place appointed, the officer making such seizure shall proceed to sell the said estate at public auction, offering the same at a minimum price, including the amount of duties with the ten per centum additional thereon, and all charges for advertising, and an officer's fee of ten dollars. And if no person offers for said estate the amount of said minimum, the officer shall declare the same to be purchased by him for the United States, and shall deposit with the district attorney of the United States a deed thereof, as hereinafter specified and provided; otherwise the same shall be declared to be sold to the highest bidder. And said sale may be adjourned by said officer for a period not exceeding five days, if he shall think it advisable so to do. If the amount bid shall not be then and there paid, the officer shall forthwith proceed to again sell said estate in the same manner. If the amount bid shall be then and there paid, the officer shall give his receipt therefor, if requested, and within five days thereafter he shall make out a deed of the estate so sold to the purchaser thereof, and execute the same in his official capacity, in the manner prescribed by the laws of the State in which said estate may [be] situated, in which said deed shall be recited the fact of said seizure and sale, with the cause thereof, the amount of duty for which said sale was made, and of all charges and fees, and the amount paid by the purchaser, and all his acts and doings in relation to said seizure and sale, and shall have the same ready for delivery to said purchaser, and shall deliver the same accordingly, upon request therefor. And said deed shall be prima facie evidence of the truth of the facts stated therein; and if the proceedings of the officer as set forth have been substantially in pursuance of the provisions of this act, shall be considered and operate as a conveyance to the purchaser of the title to said estate, but shall not affect the rights of third persons acquired previously to the claim of the United States under this act. The surplus, if any, arising from such sale shall be disposed of as provided in this act for like cases arising upon sales of personal property. And any person whose estate may be seized for duties, as aforesaid, shall have the same right to pay or tender the amount due, with all proper charges thereon, prior to the sale thereof, and thereupon to relieve his said estate from sale, as aforesaid, as is provided in this act for personal property similarly situated. And any collector or deputy collector may, for the collection of duties imposed upon any person by this act, and committed to him for collection, seize and sell the lands of such person situated in any other collection district within the State in which said officer resides; and his proceedings in relation thereto shall have the same effect as if the same were had in his proper collection district; and the owners, their heirs, executors, or administrators, or any person having an

interest therein, or any person on their behalf, shall have liberty to redeem the land sold, as aforesaid, within one year from and after recording the said deed, upon payment to the purchaser, or in case he cannot be found in the county where the lands are situate, to the collector for the use of the purchaser, his heirs, or assigns, of the amount paid by the purchaser, with interest on the same at the rate of twenty per centum per annum. And it shall be the duty of every collector to keep a record of all sales of land made in his collection district, whether by himself or his deputies, in which shall be set forth the tax for which any such sale was made, the dates of seizure and sale, the name of the party assessed, and all proceedings in making said sale, the amount of fees and expenses, the name of the purchaser, and the date of the deed; which record shall be certified by the officer making the sale. And it shall be the duty of any deputy making sale, as aforesaid, to return a statement of all his proceedings to the collector, and to certify the record thereof. And in case of the death or removal of the collector, or the expiration of his term of office from any other cause, said record shall be deposited in the office of the clerk of the district court of the United States for the district within which the said collector resided; and a copy of every such record, certified by the collector, or by the clerk, as the case may require, shall be evidence in any court of the truth of the facts therein stated. And when any lands sold, as aforesaid, shall be redeemed as hereinbefore provided, the collector or clerk, as the case may be, shall make an entry of the fact upon the record aforesaid, and the said entry shall be evidence of such redemption. And the claim of the government to lands sold under and by virtue of the foregoing provisions shall be held to have accrued at the time of seizure thereof.

SEC. 22. *And be it further enacted*, That if any collector shall find upon any lists of taxes returned to him for collection property lying within his district which is charged with any specific or ad valorem tax or duty, but which is not owned, occupied, or superintended by some person known to such collector to reside or have some place of business within the United States, such collector shall forthwith take such property into his custody, and shall advertise the same, and the tax charged upon the same, in some newspaper published in his district, if any shall be published therein, otherwise in some newspaper in an adjoining district, for the space of thirty days; and if the taxes thereon, with all charges for advertising, shall not be paid within said thirty days, such collector shall proceed to sell the same, or so much as is necessary, in the manner provided for the sale of other goods distrained for the non-payment of taxes, and out of the proceeds shall satisfy all taxes charged upon such property, with the costs of advertising and selling the same. And like proceedings to those provided in the preceding section for the purchase and resale of property which cannot be sold for the amount of duty or tax due thereon shall be had with regard to property sold under the provisions of this section. And any surplus arising from any sale herein provided for, shall be paid into the treasury, for the benefit of the owner of the property. And the Secretary of the Treasury is authorized, in any case where money shall be paid into the treasury for the benefit of any owner of property sold, as aforesaid, to repay the same, on proper proof being furnished that the person applying therefor is entitled to receive the same.

SEC. 23. *And be it further enacted*, That the several collectors shall, at the expiration of each and every month, after they shall, respectively, commence their collections, transmit to the Commissioner of Internal Revenue

a statement of the collections made by them, respectively, within the month, and pay over monthly, or at such time or times as may be required by the Commissioner of Internal Revenue, the moneys by them respectively collected within the said term, and at such places as may be designated and required by the Commissioner of Internal Revenue; and each of the said collectors shall complete the collection of all sums annually assigned to him for collection, as aforesaid, shall pay over the same into the treasury, and shall render his final account to the Treasury Department as often as he may be required, and within six months from and after the day when he shall have received the collection lists from the said assessors or assistant assessors, as aforesaid. And the Secretary of the Treasury is authorized to designate one or more depositories in each State, for the deposit and safe keeping of the moneys collected by virtue of this act; and the receipt of the proper officer of such depository to a collector for the money deposited by him shall be a sufficient voucher for such collector in the settlement of his accounts at the Treasury Department; and the Commissioner of Internal Revenue may, under the direction of the Secretary of the Treasury, prescribe such regulations with reference to such deposits as he may deem necessary.

SEC. 24. *And be it further enacted*, That each collector shall be charged with the whole amount of taxes by him receipted, whether contained in lists delivered to him by the assessors, respectively, or delivered or transmitted to him by assistant assessors from time to time, or by other collectors; and shall be credited with the amount of duties or taxes contained in the lists transmitted in the manner above provided to other collectors, and by them receipted, as aforesaid; and also for the duties or taxes of such persons as may have absconded, or become insolvent, prior to the day when the duty or tax ought, according to the provisions of this act, to have been collected: *Provided*, That it shall be proved to the satisfaction of the First Controller of the Treasury that due diligence was used by the collector, and that no property was left from which the duty or tax could have been recovered. And each collector shall also be credited with the amount of all property purchased by him for the use of the United States, provided he shall faithfully account for, and pay over, the proceeds thereof upon a resale of the same as required by this act.

SEC. 25. *And be it further enacted*, That if any collector shall fail either to collect or to render his account, or to pay over in the manner or within the times hereinbefore provided, it shall be the duty of the First Controller of the Treasury, and he is hereby authorized and required, immediately after such delinquency, to report the same to the Solicitor of the Treasury, who shall issue a warrant of distress against such delinquent collector and his sureties, directed to the marshal of the district, therein expressing the amount of the taxes with which the said collector is chargeable, and the sums, if any, which have been paid. And the said marshal shall, himself, or by his deputy, immediately proceed to levy and collect the sum which may remain due, by distress and sale of the goods and chattels, or any personal effects of the delinquent collector, giving at least five days notice of the time and place of sale, in the manner provided by law for advertising sales of personal property on execution in the State wherein such collector resides; and, furthermore, if such goods, chattels, and effects cannot be found sufficient to satisfy the said warrant, the said marshal or his deputy shall and may proceed to levy and collect the sum which remains due, by distress and sale of the goods and chattels, or any personal effects, of the

surety or sureties of the delinquent collector, giving notice as hereinbefore provided. And the bill of sale of the officer of any goods, chattels, or other personal property, distrained and sold as aforesaid, shall be conclusive evidence of title to the purchaser, and prima facie evidence of the right of the officer to make such sale, and of the correctness of his proceedings in selling the same. And for want of goods and chattels, or other personal effects of such collector or his sureties, sufficient to satisfy any warrant of distress, issued pursuant to the preceding section of this act, the lands and real estate of such collector and his sureties, or so much thereof as may be necessary for satisfying the said warrant, after being advertised for at least three weeks in not less than three public places in the collection district, and in one newspaper printed in the county or district, if any there be, prior to the proposed time of sale, may and shall be sold at public auction by the marshal or his deputy, who, upon such sale, shall, as such marshal or deputy marshal, make and deliver to the purchaser of the premises so sold a deed of conveyance thereof, to be executed and acknowledged in the manner and form prescribed by the laws of the State in which said lands are situated, which said deed so made shall invest the purchaser with all the title and interest of the defendant or defendants named in said warrant existing at the time of seizure thereof. And all moneys that may remain of the proceeds of such sale after satisfying the said warrant of distress, and paying the reasonable costs and charges of sale, shall be returned to the proprietor of the lands or real estate sold as aforesaid.

SEC. 26. *And be it further enacted*, That each and every collector, or his deputy, who shall exercise or be guilty of any extortion or wilful oppression, under color of this act, or shall knowingly demand other or greater sums than shall be authorized by this act, shall be liable to pay a sum not exceeding double the amount of damages accruing to the party injured, to be recovered by and for the use of the party injured, with costs of suit, and shall be dismissed from office, and be disqualified from holding such office thereafter; and each and every collector, or his deputies, shall give receipts for all sums by them collected and retained in pursuance of this act.

SEC. 27. *And be it further enacted*, That a collector or deputy collector, assessor or assistant assessor, shall be authorized to enter, in the daytime, any brewery, distillery, manufactory, building, or place where any property, articles, or objects, subject to duty or taxation under the provisions of this act, are made, produced, or kept, within his district, so far as may be necessary for the purpose of examining said property, articles, or objects, or inspecting the accounts required by this act from time to time to be made. And every owner of such brewery, distillery, manufactory, building, or place, or person having the agency or superintendence of the same, who shall refuse to admit such officer, or to suffer him to examine said property, articles, or objects, or to inspect said accounts, shall, for every such refusal, forfeit and pay the sum of five hundred dollars.

SEC. 28. *And be it further enacted*, That if any person shall forcibly obstruct or hinder a collector or deputy collector in the execution of this act, or of any power and authority hereby vested in him, or shall forcibly rescue, or cause to be rescued, any property, articles, or objects, after the same shall have been seized by him, or shall attempt or endeavor so to do, the person so offending shall, for every such offence, forfeit and pay the sum of five hundred dollars.

SEC. 29. *And be it further enacted*, That in case of the sickness or tem-

porary disability or a collector to discharge such of his duties as cannot under existing laws be discharged by a deputy, they may be devolved by him upon one of his deputies: *Provided*, That information thereof be immediately communicated to the Secretary of the Treasury, and shall not be disapproved by him: *And provided, further*, That the responsibility of the collector or his sureties to the United States shall not be affected or impaired thereby.

SEC. 30. *And be it further enacted*, That in case a collector shall die, resign, or be removed, the deputies of such collector shall continue to act until their successors are appointed; and the deputy of such collector longest in service at the time immediately preceding may and shall, until a successor shall be appointed, discharge all the duties of said collector; and for the official acts and defaults of such deputy a remedy shall be had on the official bond of the collector, as in other cases; and of two or more deputy collectors, appointed on the same day, the one residing nearest the residence of the collector at the time of his death, resignation, or removal, shall in like manner discharge the said duties until the appointment of a successor; and any bond or security taken of such deputy by such collector, pursuant to the fifth section of this act, shall be available to his heirs or representatives to indemnify them for loss or damage accruing from any act of the proper deputy so continuing or so succeeding to the duties of such collector.

SEC. 31. *And be it further enacted*, That it shall be the duty of the collectors aforesaid, or their deputies, in their respective districts, and they are hereby authorized, to collect all the duties and taxes imposed by this act, however the same may be designated, and to prosecute for the recovery of the same, and for the recovery of any sum or sums which may be forfeited by virtue of this act; and all fines, penalties, and forfeitures which may be incurred or imposed by virtue of this act shall and may be sued for and recovered, in the name of the United States, or of the collector within whose district any such fine, penalty, or forfeiture shall have been incurred, in any proper form of action, or by any appropriate form of proceeding, before any circuit or district court of the United States for the district within which said fine, penalty, or forfeiture may have been incurred, or before any other court of competent jurisdiction; and where not otherwise and differently provided for, one moiety thereof shall be to the use of the United States, and the other moiety thereof to the use of the person who, if a collector or deputy collector, shall first inform of the cause, matter, or thing whereby any such fine, penalty, or forfeiture was incurred.

SEC. 32. *And be it further enacted*, That if any person, in any case, matter, hearing, or other proceeding in which an oath or affirmation shall be required to be taken or administered under and by virtue of this act, shall, upon the taking of such oath or affirmation, knowingly and willingly swear or affirm falsely, every person so offending shall be deemed guilty of perjury, and shall on conviction thereof, be subject to the like punishment and penalties now provided by the laws of the United States for the crime of perjury.

SEC. 33. *And be it further enacted*, That separate accounts shall be kept at the treasury of all moneys received from internal duties or taxes in each of the respective States, Territories, and collection districts; and that separate accounts shall be kept of the amount of each species of duty or tax that shall accrue, so as to exhibit, as far as may be, the amount collected from each source of revenue, with the moneys paid to the collectors and

deputy collectors, and to the other officers employed in each of the respective States, Territories, and collection districts, an abstract in tabular form of which accounts it shall be the duty of the Secretary of the Treasury, annually, in the month of December, to lay before Congress.

SEC. 34. *And be it further enacted*, That there shall be allowed to the collectors appointed under this act, in full compensation for their services and that of their deputies in carrying this act into effect, a commission of four per centum upon the first hundred thousand dollars, and two per centum upon all sums above one hundred thousand dollars; such commissions to be computed upon the amounts by them respectively paid over and accounted for under the instructions of the Treasury Department: *Provided*, That in no case shall such commissions exceed the sum of ten thousand dollars per annum, except as hereinafter provided. And there shall be further allowed to each collector his necessary and reasonable charges for stationery and blank books used in the performance of his official duties, which, after being duly examined and certified by the Commissioner of Internal Revenue, shall be paid out of the treasury: *Provided*, That the Secretary of the Treasury be authorized to make such further allowance as may be reasonable in cases in which, from the territorial extent of the district or from the amount of internal duties collected, it may seem just to make such allowance; but the whole compensation shall not exceed ten thousand dollars, except in collection districts embracing more than one congressional district.

SEC. 35. *And be it further enacted*, That when any duty or tax shall have been paid by levy and distraint, any person or persons or party who may feel aggrieved thereby may apply to the assessor of the district for relief, and exhibit such evidence as he, she, or they may have of the wrong done, or supposed to have been done, and after a full investigation the assessor shall report the case, with such parts of the evidence as he may judge material, including also such as may be regarded material by the party aggrieved, to the Commissioner of Internal Revenue, who may, if it shall be made to appear to him that such duty or tax was levied or collected, in whole or in part, wrongfully or unjustly, certify the amount wrongfully and unjustly levied or collected, and the same shall be refunded and paid to the person or persons or party as aforesaid, from any moneys in the treasury not otherwise appropriated, upon the presentation of such certificate to the proper officer thereof.

SEC. 36. *And be it further enacted*, That in all cases of distraint and sale of goods, or chattels, for non-payment of taxes provided for in this act, the bill of sale of such goods or chattels given by the officer making such sale to the purchaser thereof shall be conclusive evidence of the right of the officer to make such sale, and of the correctness of his proceedings in selling the same.

SEC. 37. *And be it further enacted*, That if for any cause, at any time after this act goes into operation, the laws of the United States cannot be executed in a State or Territory of the United States, or any part thereof, or within the District of Columbia, it shall be the duty of the President, and he is hereby authorized, to proceed to execute the provisions of this act within the limits of such State or Territory, or part thereof, or District of Columbia, so soon as the authority of the United States therein shall be re-established, and to collect the sums which would have been due from the persons residing or holding property, goods, wares, or merchandise, object

or article therein liable to any duty, license, or tax, with interest at the rate of six per centum per annum thereon from the time such duty, license, or tax ought to have been paid until paid in the manner and under the regulations prescribed in this act, so far as applicable, and where not applicable the assessment and levy shall be made and the time and manner of collection regulated by the instructions and directions of the Commissioner of Internal Revenue, under the direction of the Secretary of the Treasury.

SEC. 38. *And be it further enacted*, That the officers who may be appointed under this act, except within those districts within any State or Territory which have been or may be otherwise specially provided for by law, shall be, and hereby are, authorized, in all cases where the payment of such tax has not been assumed by the State, to perform all the duties relating to or regarding the assessment and collection of the direct tax imposed by an act entitled "An act to provide increased revenue from imports to pay interest on the public debt, and for other purposes," approved August fifth, eighteen hundred and sixty-one, or any direct tax which may be hereafter enacted: *Provided*, That the sum of nineteen thousand three hundred and twelve dollars, direct tax, laid upon the Territory of Nebraska by said act, shall be paid and satisfied by deducting said amount from the appropriation for legislative expenses of the Territory of Nebraska for the year ending thirtieth of June, eighteen hundred and sixty-three, and no further claim shall be made by said Territory for legislative expenses for said year: *Provided, further*, That the State of Tennessee shall have until the first day of December next to assume the payment of her portion of said tax.

SPIRITS, ALE, BEER, AND PORTER.

SEC. 39. *And be it further enacted*, That it shall be the duty of the collectors, within their respective districts, to grant licenses for distilling, which licenses shall contain the date thereof, the sum paid, and the time when the same will expire, and shall be granted to any person, being a resident of the United States, who shall desire the same, by application, in writing, to such collector, upon payment of the sum or duty payable by this act upon each license requested. And at the time of applying for said license, and before the same is issued, the person so applying shall give bond to the United States in such sum as shall be required by the collector, and with one or more sureties, to be approved by said collector conditioned that in case any additional still or stills, or other implements to be used as aforesaid, shall be erected by him, his agent or superintendent, he will, before using, or causing or permitting the same to be used, report in writing to the said collector the capacity thereof, and information from time to time of any change in the form, capacity, ownership, agency, or superintendence, which all or either of the said stills or implements may undergo; and that he will, from day to day, enter, or cause to be entered, in a book to be kept for that purpose, the number of gallons of spirits that may be distilled by said still or stills, or other implements, and also of the quantities of grain or other vegetable productions, or other substances put into the mash tub, or otherwise used by him, his agent or superintendent, for the purpose of producing spirits, which said book shall be open at all times during the day (Sundays excepted) to the inspection of the said collector, who may make any memorandum or transcripts therefrom: and that he will render to the said collector, on the first, tenth, and twentieth days of each and every month, or

within five days thereafter, during the continuance of said license, an exact account, in writing, taken from his books, of the number of gallons of spirits distilled and sold, or removed for consumption or sale, by him, his agent, or superintendent, and the proof thereof, and also of the quantities of grain or other vegetable productions, or other substances, put into the mash tub, or otherwise used by him, his agent, or superintendent, for the purpose of producing spirits, for the period or fractional part of a month then next preceding the date of said report, which said report shall be verified by affidavit in the manner prescribed by this act; and that he will not sell or permit to be sold, or removed for consumption or sale, any spirits distilled by him under and by virtue of said license, until the same shall have been inspected, gauged, and proved, and the quantity thereof duly entered upon his books as aforesaid; and that he will, at the time of rendering said account, pay to the said collector the duties which by this act are imposed on the spirits so distilled; and the said bond may be renewed or changed, from time to time, in regard to the amount and sureties thereof, according to the discretion of the collector.

SEC. 40. *And be it further enacted*, That the application in writing made by any person for a license for distilling, as aforesaid, shall state the place of distilling, the number and capacity of the still or stills, boiler or boilers, and the name of the person, firm, company or corporation using the same; and any person making a false statement in either of the said particulars shall forfeit and pay the sum of one hundred dollars, to be recovered with costs of suit.

SEC. 41. *And be it further enacted*, That in addition to the duties payable for licenses herēin provided, there shall be paid, on all spirits that may be distilled and sold, or removed for consumption or sale, of first proof, on and after the first day of August, eighteen hundred and sixty-two, the duty of twenty cents on each and every gallon, which shall be paid by the owner, agent, or superintendent of the still or other vessel in which the said spirituous liquors shall have been distilled; which duty shall be paid at the time of rendering the accounts of spirituous liquors so chargeable with duty, required to be rendered by this act: *Provided*, That the duty on spirituous liquors and all other spirituous beverages enumerated in this act shall be collected at no lower rate than the basis of first proof, and shall be increased in proportion for any greater strength than the strength of proof.

SEC. 42. *And be it further enacted*, That the term first proof used in this act and in section six of the act of March second, eighteen hundred and sixty-one, entitled, "An act to provide for the payment of outstanding treasury notes, to authorize a loan, to regulate and fix the duties on imports, and for other purposes," shall be construed, and is hereby declared to mean, that proof of a liquor which corresponds to fifty degrees of Tralles' centesimal hydrometer, adopted by regulation of the Treasury Department, of August twelfth, eighteen hundred and fifty, at the temperature of sixty degrees of Fahrenheit's thermometer; and that in reducing the temperatures to the standard of sixty, and in levying duties on liquors above and below proof, the table of commercial values, contained in the manual for inspectors of spirits, prepared by Professor McCULLOH, under the superintendence of Professor BACHE, and adopted by the Treasury Department, shall be used and taken as giving the proportions of absolute alcohol in the liquids gauged and proved according to which duties shall be levied.

SEC. 43. *And be it further enacted*, That there shall be designated by

the collector in every assessment district where the same may be necessary one or more inspectors, who shall take an oath faithfully to perform their duties in such form as the Commissioner of Internal Revenue shall prescribe, and who shall be entitled to receive such fees as may be fixed and prescribed by said commissioner. And all spirits distilled as aforesaid by any person licensed as aforesaid shall, before the same is used, or removed for consumption or sale, be inspected, gauged, and proved by some person so as aforesaid designated for the performance of such duties, and who shall mark upon the cask or other package containing such spirits, in a manner to be prescribed by said commissioner, the quantity and proof of the contents of such cask or package, with the date of inspection and the name of the inspector. And any person who shall attempt fraudulently to evade the payment of duties upon any spirits distilled as aforesaid, by changing in any manner the mark upon any such cask or package, shall forfeit the sum of five hundred dollars for each cask or package so altered or changed, to be recovered as hereinbefore provided. And the fees of such inspector shall in all cases be paid by the owner of the spirits so inspected, gauged, and proved. And any such inspector who shall knowingly put upon any such cask or package any false or fraudulent mark shall be liable to the same penalty hereinbefore provided for each cask or package so fraudulently marked. And any person who shall use any cask or package so marked, for the purpose of selling spirits of a quality different from that so inspected, shall be subject to a like penalty for each cask or package so used.

SEC. 44. *And be it further enacted*, That the owner or owners of any distillery may erect, at his or their own expense, a warehouse of iron, stone, or brick, with metal or other fire-proof roof, to be contiguous to such distillery; and such warehouse, when approved by the collector, is hereby declared a bonded warehouse of the United States, and shall be used only for storing distilled spirits, and to be under the custody of the collector or his deputy. And the duty on the spirits stored in such warehouse shall be paid when and as it is sold or removed from such warehouse for sale.

SEC. 45. *And be it further enacted*, That every person who, on the first day of August, eighteen hundred and sixty-two, shall be the owner of any still, boiler, or other vessel, used or intended to be used for the purpose of distilling spirituous liquors, as hereinbefore provided, or who shall have such still, boiler, or other vessel under his superintendence, either as agent for the owner or on his own account, and every person who, after said day, shall use or intend to use any still, boiler, or other vessel, as aforesaid, either as owner, agent, or otherwise, shall from day to day make true and exact entry, or cause to be entered, in a book to be kept by him for that purpose, the number of gallons of spirituous liquors distilled by him, and also the number of gallons sold, or removed for consumption or sale, and the proof thereof, which book shall always be open in the daytime, Sundays excepted, for the inspection of the said collector, who may take any minutes, memorandums, or transcripts thereof, and shall render to said collector, on the first, tenth, and twentieth days of each and every month in each year, or within five days thereafter, a general account in writing, taken from his books, of the number of gallons of spirituous liquors distilled and sold, or removed for consumption or sale, and the proof thereof, for the period or fractional part of a month preceding said day, or for such portion thereof as may have elapsed from the date of said entry and report to the said day which shall next ensue; and shall also keep a book, or books, in a form to be pre-

scribed by the Commissioner of Internal Revenue, and to be open at all seasonable hours for inspection by the collector and assessor of the district, wherein shall be entered, from day to day, the quantities of grain, or other vegetable productions, or other substances put into the mash tub by him, his agent, or superintendent, for the purpose of producing spirits; and shall verify or cause to be verified the said entries, reports, books, and general accounts, by oath or affirmation, to be taken before the collector or some other officer authorized by the laws of the State to administer the same according to the form required by this act, where the same is prescribed; and shall also pay to the collector the duties which by this act ought to be paid on the spirituous liquors so distilled and sold, or removed for consumption or sale, and in said accounts mentioned, at the time of rendering an account thereof.

SEC. 46. *And be it further enacted*, That the collector of any district may grant a permit to the owner or owners of any distillery within his district to send or ship any spirits, the product of said distillery, after the quantity and proof thereof shall have been ascertained by inspection according to the provisions of this act, to any place without said district and within the United States; and in such case the bill of lading or receipt (which shall be in such form as the Commissioner of Internal Revenue may direct) of the same shall be taken in the name of the collector of the district in which the distillery is situate, and the spirits aforesaid shall be consigned, in such bill of lading or receipt, to the collector of the district in which the place is situate, whither the spirits is sent or shipped, and the amount of duties upon said spirits shall be stated in the receipt; and upon the arrival of the spirits, and upon the demand of the collector aforesaid, the agent of the distillery (and the name of the agent, for the convenience of the collector, shall always appear in the bill of lading or receipt,) shall pay the duties upon the said spirits, with the expense of freight, and every other expense which has accrued thereupon; and the said collector, upon the payment of the duties aforesaid, shall deliver the bill of lading or receipt and the spirits to the agent of the said distillery; and if the duties are not paid, as aforesaid, then the said spirits shall be stored at the risk and cost of the owner or agent thereof, who shall pay an addition of ten per centum thereupon; and all the general provisions of this act, in reference to liens, penalties, and forfeitures, as also in reference to the collection, shall apply thereto, and be enforced by the collector of the district in which the spirits may be: *Provided*, That no permit shall be granted, under this section, for a quantity less than fifty barrels: *And provided, further*, That the Commissioner of Internal Revenue, under the direction of the Secretary of the Treasury, may make such further regulations and require such further securities as he may deem proper, in order to protect the revenue and to carry out the spirit and intent of this section.

SEC. 47. *And be it further enacted*, That distilled spirits may be removed from the place of manufacture for the purpose of being exported, or for the purpose of being re-distilled for export, and refined coal oil may be removed for the purpose of being exported, after the quantity of spirits or oil so removed shall have been ascertained by inspection, according to the provisions of this act, upon and with the written permission of the collector or deputy collector of the district, without payment of the duties thereon previous to such removal, the owner thereof having first given bond to the United States, with sufficient sureties, in the manner and form and under

regulations prescribed by the Commissioner of Internal Revenue, and in at least double the amount of said duties, to export the said spirits or oil or pay the duties thereon within such time as may be prescribed by the Commissioner, which time shall be stated in said bond: *Provided*, That any person desiring to give such bond shall first make oath, before the collector or deputy collector to whom he may apply for a permit to remove any such spirits or oil, in manner and form to be prescribed by said Commissioner, that he intends to export such liquors or oil, and that he desires to obtain said permit for no other purpose whatever; and any collector or deputy collector is hereby authorized to administer such oath: *And provided, further*, That no such removal shall be permitted where the amount of duties does not exceed the sum of three hundred dollars, nor in any case where the person desiring such permission has failed to perform the obligation of any bond previously given to the United States for the removal of any such articles, until the same shall have been fully kept and performed. And the collector of the district in which any such bond may be given is authorized to cancel said bond on payment of said duties, with interest thereon, at a rate to be fixed by said Commissioner, and all proper charges, if said liquors or oil shall not have been exported, or upon satisfactory proof that the same have been duly exported, as aforesaid. And in case of the breach of the obligation of any such bond, the same shall be forthwith forwarded by the collector of the district to the Commissioner of Internal Revenue, to be by him placed in the hands of the First Controller of the Treasury, who shall cause the same proceedings to be taken thereon for the purpose of collecting the duties, interest, and charges aforesaid, as are provided in this act in case of a delinquent collector.

Sec. 48. *And be it further enacted*, That the entries made in the books of the distiller, required to be kept in the foregoing section, shall, on the first, tenth, and twentieth days of each and every month, or within *five* days thereafter, be verified by oath or affirmation, to be taken as aforesaid, of the person or persons by whom such entries shall have been made, which oath or affirmation shall be certified at the end of such entries by the collector or officer administering the same, and shall be, in substance, as follows: "I do swear (or affirm) that the foregoing entries were made by me on the respective days specified, and that they state, according to the best of my knowledge and belief, the whole quantity of spirituous liquors distilled and sold, or removed for consumption or sale, at the distillery owned by ———, in the county of ———, amounting to ——— gallons, according to proof prescribed by the laws of the United States."

Sec. 49. *And be it further enacted*, That the owner, agent, or superintendent aforesaid, shall, in case the original entries required to be made in his books by this act shall not have been made by himself, subjoin to the oath or affirmation of the person by whom they were made the following oath or affirmation, to be taken as aforesaid: "I do swear (or affirm) that, to the best of my knowledge and belief, the foregoing entries are just and true, and that I have taken all the means in my power to make them so."

Sec. 50. *And be it further enacted*, That on and after the first day of August, eighteen hundred and sixty-two, there shall be paid on all beer, lager beer, ale, porter, and other similar fermented liquors, by whatever name such liquors may be called, a duty of one dollar for each and every barrel containing not more than thirty-one gallons, and at a like rate for any other quantity or for fractional parts of a barrel, which shall be brewed

or manufactured and sold or removed for consumption or sale within the United States or the Territories thereof, or within the District of Columbia after that day; which duty shall be paid by the owner, agent, or superintendent of the brewery or premises in which such fermented liquors shall be made, and shall be paid at the time of rendering the accounts of such fermented liquors so chargeable with duty, as required to be rendered by the following section of this act: *Provided*; That fractional parts of a barrel shall be halves, quarters, eighths, and sixteenths, and any fractional part containing less than one-sixteenth shall be accounted one-sixteenth; more than one-sixteenth, and not more than one-eighth, shall be accounted one-eighth; more than one-eighth, and not more than one-quarter, shall be accounted one-quarter; more than one-quarter, and not more than one-half, shall be accounted one-half; more than one-half shall be accounted one barrel.

SEC. 51. *And be it further enacted*, That every person who, on said first day of August, eighteen hundred and sixty-two, shall be the owner or occupant of any brewery or premises used or intended to be used for the purpose of brewing or making such fermented liquors, or who shall have such premises under his control or superintendence as agent for the owner or occupant, or shall have in his possession or custody any vessel or vessels intended to be used on said premises in the manufacture of beer, lager beer, ale, porter, or other similar fermented liquors, either as owner, agent, or otherwise, shall, from day to day, enter or cause to be entered in a book to be kept by him for that purpose, and which shall be open at all times, except Sundays, between the rising and setting of the sun, for the inspection of said collector, who may take any minutes or memorandums or transcripts thereof, the quantities of grain, or other vegetable productions, or other substances, put into the mash tub, or otherwise used for the purpose of producing beer, or for any other purpose, and the quantity or number of barrels and fractional parts of barrels of fermented liquors made and sold, or removed for consumption or sale, keeping separate account of the several kinds and descriptions: and shall render to said collector, on the first day of each month in each year, or within ten days thereafter, a general account, in writing, taken from his books, of the quantities of grain, or other vegetable productions or other substances, put into the mash tub, or otherwise used for the purpose of producing beer, or for any other purpose, and the quantity or number of barrels and fractional parts of barrels of each kind of fermented liquors made and sold, or removed for consumption or sale, for one month preceding said day, and shall verify, or cause to be verified, the said entries, reports, books, and general accounts, on oath or affirmation, to be taken before the collector or some officer authorized by the laws of the State to administer the same according to the form required by this act where the same is prescribed; and shall also pay to the said collector the duties which, by this act, ought to be paid on the liquor made and sold, or removed for consumption or sale, and in the said accounts mentioned, at the time of rendering the account thereof, as aforesaid. But where the manufacturer of any beer, lager beer, or ale, manufactures the same in one collection district, and owns or hires a depot or warehouse for the storage and sale of such beer, lager beer, or ale in another collection district, he may, instead of paying to the collector of the district where the same was manufactured the duties chargeable thereon, present to such collector or his deputy an invoice of the quantity or number of barrels about to be removed

for the purpose of storage and sale, specifying in such invoice, with reasonable certainty, the depot or warehouse in which he intends to place such beer, lager beer, or ale; and thereupon such collector or deputy shall indorse on such invoice his permission for such removal, and shall, at the same time, transmit to the collector of the district in which such depot or warehouse is situated a duplicate of such invoice; and thereafter the manufacturer of the beer, lager beer, or ale so removed shall render the same account, and pay the same duties, and be subject to the same liabilities and penalties as if the beer, lager beer, or ale so removed had been manufactured in the district. The Commissioner of Internal Revenue may prescribe such rules as he may deem necessary for the purpose of carrying the provisions of this section into effect.

SEC. 52. *And be it further enacted*, That the entries made in the books required to be kept by the foregoing section shall, on said first day of each and every month, or within ten days thereafter be verified by the oath or affirmation, to be taken as aforesaid, of the person or persons by whom such entries shall have been made, which oath or affirmation shall be certified at the end of such entries by the collector or officer administering the same, and shall be, in substance, as follows:

"I do swear (or affirm) that the foregoing entries were made by me on the respective days specified, and that they state, according to the best of my knowledge and belief, the whole quantity of fermented liquors either brewed or brewed and sold at the brewery owned by ———, in the county of ———, amounting to ——— barrels."

SEC. 53. *And be it further enacted*, That the owner, agent, or superintendent aforesaid, shall, in case the original entries required to be made in his books shall not have been made by himself, subjoin to the oath or affirmation the following oath or affirmation, to be taken as aforesaid:

"I do swear (or affirm) that, to the best of knowledge and belief, the foregoing entries are just and true, and that I have taken all the means in my power to make them so."

SEC. 54. *And be it further enacted*, That the owner, agent, or superintendent of any vessel or vessels used in making fermented liquors, or of any still, boiler, or other vessel used in the distillation of spirits on which duty is payable, who shall neglect or refuse to make true and exact entry and report of the same, or to do, or cause to be done, any of the things by this act required to be done, as aforesaid, shall forfeit for every such neglect or refusal all the liquors and spirits made by or for him, and all the vessels used in making the same, and the stills, boilers, and other vessels used in distillation, together with the sum of five hundred dollars, to be recovered with costs of suit; which said liquors or spirits, with the vessels containing the same, with all the vessels used in making the same, may be seized by any collector of internal duties, and held by him until a decision shall be had thereon according to law: *Provided*, That such seizure be made within thirty days after the cause for the same may have occurred, and that proceedings to enforce said forfeiture shall have been commenced by such collector within twenty days after the seizure thereof. And the proceedings to enforce said forfeiture of said property shall be in the nature of a proceeding in rem, in the circuit or district court of the United States for the district where such seizure is made, or in any other court of competent jurisdiction.

SEC. 55. *And be it further enacted*, That in all cases in which the duties

aforesaid, payable on spirituous liquors distilled and sold, or removed for consumption or sale, or beer, lager beer, ale, porter, and other similar fermented liquors, shall not be paid at the time of rendering the account of the same, as herein required, the person or persons chargeable therewith shall pay, in addition, ten per centum on the amount thereof; and, until such duties with such addition shall be paid, they shall be and remain a lien upon the distillery where such liquors have been distilled, or the brewery where such liquors have been brewed, and upon the stills, boilers, vats, and all other implements thereto belonging, until the same shall have been paid; and in case of refusal or neglect to pay said duties, with the addition, within ten days after the same shall have become payable, the amount thereof may be recovered by distraint and sale of the goods, chattels, and effects of the delinquent; and in case of such distraint, it shall be the duty of the officer charged with the collection to make, or cause to be made, an account of the goods, chattels, or effects which may be distrained, a copy of which, signed by the officer making such distraint, shall be left with the owner or possessor of such goods, chattels, or effects, at his, her, or their dwelling, with a note of the sum demanded, and the time and place of sale; and said officer shall forthwith cause a notification to be published in some newspaper, if any there be, within the county, and publicly posted up at the post office nearest to the residence of the person whose property shall be distrained, or at the court-house of the same county, if not more than ten miles distant, which notice shall specify the articles distrained, and the time and place proposed for the sale thereof, which time shall not be less than ten days from the date of such notification, and the place proposed for sale not more than five miles distant from the place of making such distraint: *Provided*, That in every case of distraint for the payment of the duties aforesaid, the goods, chattels, or effects so distrained may and shall be restored to the owner or possessor if, prior to the sale thereof, payment or tender thereof shall be made to the proper officer charged with the collection, of the full amount demanded, together with such fee for levying and advertising, and such sum for the necessary and reasonable expenses of removing and keeping the goods, chattels, and effects so distrained as may be allowed in like cases by the laws or practice of the State or Territory wherein the distraint shall have been made; but in case of non-payment or neglect to tender, as aforesaid, the said officer shall proceed to sell the said goods, chattels, and effects at public auction, after due notice of the time and place of sale, and may and shall retain from the proceeds of such sale the amount demandable for the use of the United States, with the said necessary and reasonable expenses of said distraint and sale, as aforesaid, and a commission of five per centum thereon for his own use; rendering the overplus, if any there be, to the person whose goods, chattels, and effects shall have been distrained.

SEC. 56. *And be it further enacted*, That every person licensed, as aforesaid to distil spirituous liquors, or licensed as a brewer, shall, once in each month, upon the request of the assessor or assistant assessor for the district in which his business as a distiller or brewer may be carried on, respectively, furnish the said assessor or assistant assessor with an abstract of the entries upon his books, herein provided to be made, showing the amount of spirituous liquor distilled and sold, or removed for consumption or sale, or of beer, lager beer, ale, porter, or other fermented liquor made and sold, or removed for consumption or sale, during the preceding month, respectively;

the truth and correctness of which abstract shall be verified by the oath of the party so furnishing the same. And the said assessor or assistant assessor shall have the right to examine the books of such person for the purpose of ascertaining the correctness of such abstract. And for any neglect to furnish such abstract when requested, or refusal to furnish an examination of the books as aforesaid, the person so neglecting shall forfeit the sum of five hundred dollars.

LICENSES.

SEC. 57. *And be it further enacted*, That from and after the first day of August, eighteen hundred and sixty-two, no person, association of persons, or corporation, shall be engaged in, prosecute, or carry on, either of the trades or occupations mentioned in section sixty-four of this act, until he or they shall have obtained a license therefor in the manner hereinafter provided.

SEC. 58. *And be it further enacted*, That every person, association of persons, partnership or corporation, desiring to obtain a license to engage in any of the trades or occupations named in the sixty-fourth section of this act, shall register with the assistant assessor of the assessment district in which he shall design to carry on such trade or occupation—first, his or their name or style; and in case of an association or partnership, the names of the several persons constituting such association or partnership and their places of residence; second, the trade or occupation for which a license is desired; third, the place where such trade or occupation is to be carried on; fourth, if a rectifier, the number of barrels he designs to rectify; if a peddler, whether he designs to travel on foot, or with one, two, or more horses; if an innkeeper, the yearly rental of the house and property to be occupied for said purpose; or, if not rented, the assistant assessor shall value the same. All of which facts shall be returned duly certified by such assistant assessor, both to the assessor and collector of the district; and thereupon, upon payment to the collector or deputy collector of the district the amount as hereinafter provided, such collector or deputy collector shall make out and deliver a license for such trade or occupation, which license shall continue in force for one year, at the place or premises described therein.

SEC. 59. *And be it further enacted*, That if any person or persons shall exercise or carry on any trade or business hereinafter mentioned for the exercising or carrying on of which trade or business a license is required by this act, without taking out such license as in that behalf required, he, she, or they shall, for every such offence, respectively, forfeit a penalty equal to three times the amount of the duty or sum of money imposed for such license, one moiety thereof to the use of the United States, the other moiety to the use of the person who, if a collector, shall first discover, and if other than a collector, shall first give information of the fact whereby said forfeiture was incurred.

SEC. 60. *And be it further enacted*, That in every license to be taken out under or by authority of this act shall be contained and set forth the purpose, trade, or business for which such license is granted, and the true name and place of abode of the person or persons taking out the same; if for a rectifier, the quantity of spirits authorized to be rectified; if by a peddler, whether authorized to travel on foot, or with one, or two, or more

horses, the time for which such license is to run, and the true date or time of granting such license, and (except in the case of auctioneers and peddlers) the place at which the trade or business for which such license is granted shall be carried on: *Provided*, That a license granted under this act shall not authorize the person or persons, association or corporation mentioned therein to exercise or carry on the trade or business specified in such license in any other place than that mentioned therein, but nothing herein contained shall prohibit the storage of goods, wares, or merchandise in other places than the place of business.

SEC. 61. *And be it further enacted*, That in every case where more than one of the pursuits, employments, or occupations, hereinafter described, shall be pursued or carried on in the same place by the same person at the same time, except as therein mentioned, license must be taken out for each according to the rates severally prescribed.

SEC. 62. *And be it further enacted*, That no auctioneer shall be authorized by virtue of his license as such auctioneer to sell any goods or other property at private sale; and if any such person shall sell any such goods or commodities, as aforesaid, otherwise than by auction, without having taken out such license as aforesaid for that purpose, he or she shall be subject and liable to the penalty in that behalf imposed upon persons dealing in or retailing, trading, or selling any such goods or commodities without license, notwithstanding any license to him or her before granted, as aforesaid, for the purpose of exercising or carrying on the trade or business of an auctioneer, or selling any goods or chattels, lands, tenements, or hereditaments by auction, anything herein contained to the contrary notwithstanding: *Provided, always*, That where such goods or commodities as aforesaid are the property of any person or persons duly licensed to deal in or retail, or trade in, or sell the same, such person or persons having made lawful entry of his, her, or their house or premises for such purpose, it shall and may be lawful for any person exercising or carrying on the trade or business of an auctioneer, or selling any goods or chattels, lands, tenements, or hereditaments, by auction as aforesaid, being duly licensed for that purpose, to sell such goods or commodities as aforesaid, at auction, for and on behalf of such person or persons, and upon his, her, or their entered house or premises, without taking out a separate license for such sale. The provisions of this section shall not apply to judicial or executive officers making auction sales by virtue of any judgment or decree of any court, nor public sales made by executors and administrators.

SEC. 63. *And be it further enacted*, That upon the death of any person or persons licensed under or by virtue of this act, or upon the removal of any such person or persons from the house or premises at which he, she, or they were authorized by such license to exercise or carry on the trade or business mentioned in such license, it shall and may be lawful for the person or persons authorized to grant licenses to authorize and empower, by indorsement on such license, or otherwise, as the Commissioner of Internal Revenue shall direct, the executors or administrators, or the wife or child of such deceased person, or the assignee or assigns of such person or persons so removing as aforesaid, who shall be possessed of and occupy the house or premises before used for such purpose as aforesaid, in like manner to exercise or carry on the same trade or business mentioned in such license, in or upon the same house or premises at which such person or persons as aforesaid deceased, or removing as before mentioned, by virtue of such license

to him, her, or them, in that behalf granted, before exercised or carried on such trade or business for or during the residue of the term for which such license was originally granted, without taking out any fresh license or payment of any additional duty, or any fee thereupon for the residue of such term, and until expiration thereof: *Provided, always,* That a fresh entry of the premises at which such trade or business shall continue to be so exercised or carried on as aforesaid shall thereupon be made by and in the name or names of the person or persons to whom such authority as aforesaid shall be granted.

Sec. 64. *And be it further enacted,* That on and after the first day of August, eighteen hundred and sixty-two, for each license granted the sum herewith stated shall be respectively and annually paid. Any number of persons carrying on such business in copartnership may transact such business at such place under such license, and not otherwise.

1. Bankers shall pay one hundred dollars for each license. Every person shall be deemed a banker within the meaning of this act who keeps a place of business where credits are opened in favor of any person, firm, or corporation, by the deposit or collection of money or currency, and the same, or any part thereof, shall be paid out or remitted upon draft, check, or order of such creditor, but not to include incorporated banks or other banks legally authorized to issue notes as circulation, nor agents for the sale of merchandise for account of producers or manufacturers.

2. Auctioneers shall pay twenty dollars for each license. Every person shall be deemed an auctioneer within the meaning of this act whose occupation it is to offer property for sale to the highest or best bidder.

3. Wholesale dealers in liquors of any and every description, including distilled spirits, fermented liquors, and wines of all kinds, shall pay one hundred dollars for each license. Every person, other than the distiller, or brewer who shall sell or offer for sale any such liquors or wines in quantities of more than three gallons at one time, to the same purchaser, shall be regarded as a wholesale dealer in liquors within the meaning of this act.

4. Retail dealers in liquors, including distilled spirits, fermented liquors and wines of every description, shall pay twenty dollars for each license. Every person who shall sell or offer for sale such liquors in less quantities than three gallons at one time, to the same purchaser, shall be regarded as a retail dealer in liquors under this act. But this shall not authorize any spirits, liquors, wines, or malt liquors, to be drank on the premises.

5. Retail dealers shall pay ten dollars for each license. Every person whose business or occupation is to sell, or offer to sell, groceries, or any goods, wares, or merchandise, of foreign or domestic production, in less quantities than a whole original piece or package at one time, to the same person, (not including wines, spirituous or malt liquors, but not excluding drugs, medicines, cigars, snuff, or tobacco,) shall be regarded as a retail dealer under this act.

6. Wholesale dealers shall pay fifty dollars for each license. Every person whose business or occupation is to sell, or offer to sell, groceries, or any goods, wares, or merchandise, of foreign or domestic production, by one or more original package or piece at one time, to the same purchaser, not including wines, spirituous or malt liquors, shall be deemed a wholesale dealer under this act; but having taken out a license as a wholesale dealer, such person may also sell, as aforesaid, as a retailer.

7. Pawnbrokers shall pay fifty dollars for each license. Every person

whose business or occupation is to take or receive, by way of pledge, pawn, or exchange, any goods, wares, or merchandise, or any kind of personal property whatever, for the repayment or security of money lent thereon, shall be deemed a pawnbroker under this act.

8. Rectifiers shall pay twenty-five dollars for each license to rectify any quantity of spirituous liquors, not exceeding five hundred barrels or casks, containing not more than forty gallons to each barrel or cask of liquor so rectified; and twenty-five dollars additional for each additional five hundred such barrels, or any fractional part thereof. Every person who rectifies, purifies, or refines spirituous liquors or wines by any process, or mixes distilled spirits, whisky, brandy, gin, or wine, with any other materials for sale under the name of whisky, rum, brandy, gin, wine, or any other name or names, shall be regarded as a rectifier under this act.

9. Distillers shall pay fifty dollars for each license, and every person or copartnership who distills or manufactures spirituous liquors for sale shall be deemed a distiller under this act: *Provided*, That any person or copartnership distilling or manufacturing less than three hundred barrels per year shall pay twenty-five dollars for a license. *And provided, further*, That no license shall be required for any still, stills, or other apparatus used by druggists and chemists for the recovery of alcohol for pharmaceutical and chemical purposes which has been used in those processes. *And provided, further*, That distillers of apples and peaches, distilling or manufacturing less than one hundred and fifty barrels per year from the same, shall pay twelve and one-half dollars for a license for that purpose, and for a greater quantity as other distillers.

10. Brewers shall pay fifty dollars for each license. Every person who manufactures fermented liquors of any name or description, for sale, from malt, wholly or in part, shall be deemed a brewer under this act: *Provided*, That any person who manufactures less than five hundred barrels per year shall pay the sum of twenty-five dollars for a license.

11. Hotels, inns, and taverns shall be classified and rated according to the yearly rental, or, if not rented, according to the estimated yearly rental of the house and property intended to be occupied for said purposes, as follows, to wit: All cases where the rent or the valuation of the yearly rental of said house and property shall be ten thousand dollars or more shall constitute the first class, and shall pay two hundred dollars for each license; where the rent or the valuation of the yearly rental shall be five thousand dollars and less than ten thousand dollars, the second class, and shall pay one hundred dollars for each license; where the rent or the valuation of the yearly rental shall be twenty-five hundred dollars and less than five thousand dollars, the third class, and shall pay seventy-five dollars for each license; where the rent or the valuation of the yearly rental shall be one thousand dollars and less than twenty-five hundred dollars, the fourth class, and shall pay fifty dollars for each license; where the rent or the valuation of the yearly rental shall be five hundred dollars and less than one thousand dollars, the fifth class, and shall pay twenty-five dollars for each license; where the rent or the valuation of the yearly rental shall be three hundred dollars and less than five hundred dollars, the sixth class, and shall pay fifteen dollars for each license; where the rent or the valuation of the yearly rental shall be one hundred dollars and less than three hundred dollars, the seventh class, and shall pay ten dollars for each license; where the rent or the valuation of the yearly rental shall be less than one hundred dollars,

the eighth class, and shall pay five dollars for each license. Every place where food and lodging are provided for and furnished to travelers and sojourners, in view of payment therefor, shall be regarded as a hotel, inn, or tavern under this act. All steamers and vessels upon water of the United States, on board of which passengers or travelers are provided with food or lodging, shall be required to take out a license of the fifth class, as aforesaid, under this act. The rental or estimated rental shall be fixed and established by the assessor of the proper district at its proper value, but at not less than the actual rent agreed on by the parties: *Provided*, That if there be any fraud or collusion in the return of actual rent to the assessor, there shall be a penalty equal to double the amount of licenses required by this section, to be collected as other penalties under this act are collected.

12. Eating-houses shall pay ten dollars for each license. Every place where food or refreshments of any kind are provided for casual visitors and sold for consumption therein shall be regarded as an eating-house under this act. But the keeper of any eating-house having taken out a license therefor shall not be required to take out a license as a confectioner, anything in this act to the contrary notwithstanding.

13. Brokers shall pay fifty dollars for each license. Any person whose business is to purchase or sell stocks, coined money, bank notes, or other securities for themselves or others, or who deals in exchanges relating to money, shall be regarded as a broker under this act.

14. Commercial brokers shall pay fifty dollars for each license. Any person or firm, except one holding a license as wholesale dealer or banker, whose business it is, as the agent of others, to purchase or sell goods, or seek orders therefor, in original or unbroken packages or produce, or to manage business matters for the owners of vessels, or for the shippers or consignors of freight carried by vessels, or whose business it is to purchase, rent, or sell real estate for others, shall be regarded a commercial broker under this act.

15. Land warrant brokers shall pay twenty five dollars for each license. Any person shall be regarded as a land warrant broker within the meaning of this act who makes a business of buying and selling land warrants, and of furnishing them to settlers or other persons under contracts to have liens upon the land procured by means of them according to the value agreed on for the warrants at the time they are furnished.

16. Tobacconists shall pay ten dollars for each license. Any person whose business it is to sell, at retail, cigars, snuff, or tobacco in any form, shall be regarded a tobacconist under this act. But wholesale and retail dealers, and keepers of hotels, inns, taverns, having taken out a license therefor, shall not be required to take out a license as tobacconists, anything in this act to the contrary notwithstanding.

17. Theaters shall pay one hundred dollars for each license. Every edifice erected for the purpose of dramatic or operatic representations, plays, or performances, and not including halls rented or used occasionally for concerts or theatrical representations, shall be regarded as a theater under this act.

18. Circuses shall pay fifty dollars for each license. Every building, tent, space, or area where feats of horsemanship or acrobatic sports are exhibited, shall be regarded as a circus under this act.

19. Jugglers shall pay for each license twenty dollars. Every person who performs by sleight of hand shall be regarded as a juggler under this

act. The proprietors or agents of all other public exhibitions or shows for money, not enumerated in this section, shall pay for each license ten dollars: *Provided*, That no license procured in one State shall be held to authorize exhibitions in another State; and but one license shall be required under this act to authorize exhibitions within any one State.

20. Bowling alleys and billiard rooms shall pay according to the number of alleys or tables belonging to or used in the building or place to be licensed. When not exceeding one alley or table, five dollars for each license; and when exceeding one alley or table, five dollars for each additional alley or table. Every place or building where bowls are thrown or billiards played, and open to the public with or without price, shall be regarded as a bowling alley or billiard room, respectively, under this act.

21. Confectioners shall pay ten dollars for each license. Every person who sells at retail confectionery, sweetmeats, comfits, or other confections, in any building, shall be regarded as a confectioner under this act. But wholesale and retail dealers, having taken out a license therefor, shall not be required to take out a license as confectioner, anything in this act to the contrary notwithstanding.

22. Horse-dealers shall pay for each license the sum of ten dollars. Any person whose business it is to buy and sell horses or mules shall be regarded a horse-dealer under this act: *Provided*, That if such horse-dealer shall have taken out a license as a livery stable keeper no new license shall be required.

23. Livery stable keepers shall pay ten dollars for each license. Any person whose occupation or business is to keep horses for hire or to let, shall be regarded as a livery stable keeper under this act.

24. Cattle brokers shall pay for each license the sum of ten dollars. Any person whose business it is to buy and sell and deal in cattle, hogs, or sheep, shall be considered as a cattle broker.

25. Tallow-chandlers and soap-makers shall pay for each license the sum of ten dollars. Any person whose business it is to make or manufacture candles or soap shall be regarded as a tallow-chandler and soap-maker under this act.

26. Coal-oil distillers shall pay for each license the sum of fifty dollars. Any person who shall refine, produce, or distil crude petroleum or rock oil, or crude coal oil, or crude oil made of asphaltum, shale, peat, or other bituminous substances, shall be regarded a coal-distiller under this act.

27. Peddlers shall be classified and rated as follows, to wit: when travelling with more than two horses, the first class, and shall pay twenty dollars for each license; when travelling with two horses, the second class, and shall pay fifteen dollars for each license; when travelling with one horse, the third class, and shall pay ten dollars for each license; when travelling on foot, the fourth class, and shall pay five dollars for each license. Any person, except persons peddling newspapers, Bibles, or religious tracts, who sells or offers to sell, at retail, goods, wares, or other commodities, travelling from place to place, in the street, or through different parts of the country, shall be regarded a peddler under this act: *Provided*, That any peddler who sells, or offers to sell, dry goods, foreign and domestic, by one or more original packages or pieces, at one time, to the same person or persons, as aforesaid, shall pay fifty dollars for each license. And any person who peddles jewelry shall pay twenty-five dollars for each license: *Provided*, That manufacturers and producers of

agricultural tools and implements, garden seeds, stoves, and hollow ware, brooms, wooden ware, and powder, delivering and selling at wholesale any of said articles, by themselves or their authorized agents at places other than the place of manufacture, shall not be required, for any sale thus made, to take out any additional license therefor.

28. Apothecaries shall pay ten dollars for each license. Every person who keeps a shop or building where medicines are compounded or prepared according to prescriptions of physicians, and sold, shall be regarded an apothecary under this act. But wholesale and retail dealers, who have taken out a license therefor, shall not be required to take out a license as apothecary, anything in this act to the contrary notwithstanding.

29. Manufacturers shall pay ten dollars for each license. Any person or persons, firms, companies, or corporations, who shall manufacture by hand or machinery, and offer for sale any goods, wares or merchandise, exceeding annually the sum of one thousand dollars, shall be regarded a manufacturer under this act.

30. Photographers shall pay ten dollars for each license when the receipts do not exceed five hundred dollars; when over five hundred dollars and under one thousand dollars, fifteen dollars; when over one thousand dollars, twenty-five dollars. Any person or persons who make for sale photographs, ambrotypes, daguerreotypes, or pictures on glass, metal, or paper, by the action of light, shall be regarded a photographer under this act.

31. Lawyers shall pay ten dollars for each license. Every person whose business it is, for fee or reward, to prosecute or defend causes in any court of record or other judicial tribunal of the United States or of any of the States, or give advice in relation to causes or matters pending therein, shall be deemed to be a lawyer within the meaning of this act.

32. Physicians, surgeons, and dentists shall pay ten dollars for each license. Every person (except apothecaries) whose business it is, for fee and reward, to prescribe remedies or perform surgical operations for the cure of any bodily disease or ailment, shall be deemed a physician, surgeon, or dentist, as the case may be, within the meaning of this act.

33. Claim agents and agents for procuring patents shall pay ten dollars for each license. Every person whose business it is to prosecute claims in any of the executive departments of the federal government, or procure patents, shall be deemed a claim or patent agent, as the case may be, under this act.

SEC. 65. *And be it further enacted*, That where the annual gross receipts or sales of any apothecaries, confectioners, eating-houses, tobacco-nists, or retail dealers, shall not exceed the sum of one thousand dollars, such apothecaries, confectioners, eating-houses, and retail dealers shall not be required to take out or pay for license, anything in this act to the contrary notwithstanding; the amount or estimated amount of such annual sales to be ascertained or estimated in such manner as the Commissioner of Internal Revenue shall prescribe, and so of all other annual sales or receipts, where the rate of the license is graduated by the amount of sales or receipts.

SEC. 66. *And be it further enacted*, That nothing contained in the preceding sections of this act, laying duties on licenses, shall be construed to require a license for the sale of goods, wares, and merchandise made

or produced and sold by the manufacturer or producer at the manufactory or place where the same is made or produced; to vintners who sell, at the place where the same is made, wine of their own growth; nor to apothecaries, as to wines or spirituous liquors which they use exclusively in the preparation or making up of medicines for sick, lame, or diseased persons; nor shall the provisions of paragraph number twenty-seven extend to physicians who keep on hand medicines solely for the purpose of making up their own prescriptions for their own patients.

SEC. 67. *And be it further enacted*, That no license hereinbefore provided for, if granted, shall be construed to authorize the commencement or continuation of any trade, business, occupation, or employment therein mentioned, within any State or Territory of the United States in which it is or shall be specially prohibited by the laws thereof, or in violation of the laws of any State or Territory: *Provided*, Nothing in this act shall be held or construed so as to prevent the several States, within the limits thereof, from placing a duty, tax, or license, for State purposes, on any business matter or thing on which a duty, tax, or license is required to be paid by this act.

MANUFACTURES, ARTICLES, AND PRODUCTS.

Specific and Ad Valorem Duty.

SEC. 68. *And be it further enacted*, That on and after the first day of August, eighteen hundred and sixty-two, every individual, partnership, firm, association or corporation, (and any word or words in this act indicating or referring to person or persons shall be taken to mean and include partnerships, firms, associations, or corporations, when not otherwise designated or manifestly incompatible with the intent thereof,) shall comply with the following requirements, that is to say:

First, Before commencing, or, if already commenced, before continuing, any such manufacture for which he, she, or they may be liable to be assessed, under the provisions of this act, and which shall not be differently provided for elsewhere, within thirty days after the date when this act shall take effect, he, she, or they shall furnish to the assistant assessor a statement, subscribed and sworn to, or affirmed, setting forth the place where the manufacture is to be carried on, name of the manufactured article, the proposed market for the same, whether foreign or domestic, and generally the kind and quality manufactured or proposed to be manufactured.

Second, He shall within ten days after the first day of each and every month, after the day on which this act takes effect, as hereinbefore mentioned, or on or before a day prescribed by the Commissioner of Internal Revenue, make return of the product and sales or delivery of such manufacture in form and detail as may be required, from time to time, by the Commissioner of Internal Revenue.

Third, All such returns, statements, descriptions, memoranda, oaths, and affirmations, shall be in form, scope, and detail as may be prescribed, from time to time, by the Commissioner of Internal Revenue.

SEC. 69. *And be it further enacted*, That upon the amounts, quantities, and values of produce, goods, wares, merchandise, and articles manufactured and sold, or delivered, hereinafter enumerated, the manufacturer

thereof, whether manufactured for himself or for others, shall pay to the collector of internal revenue within his district, monthly, or on or before a day to be prescribed by the Commissioner of Internal Revenue, the duties on such manufactures: *Provided*, That when thread is manufactured and sold or delivered exclusively for knitted fabrics, or for weaving or spooling, as provided for in the seventy-fifth section of this act, the duties shall be assessed on the articles finished and prepared for use or consumption to the party so finishing or preparing the same, and any party so finishing or preparing any cloth or other fabrics of cotton, wool, or other materials, whether imported or otherwise, shall be considered the manufacturer thereof for the purposes of this act; and for neglect to pay such duties within ten days after demand, either personal or written, left at his, her, or their house or place of business, or manufactory, the amount of such duties may be levied upon the real and personal property of any such manufacturer. And such duties, and whatever shall be the expense of levy, shall be a lien from the day prescribed by the commissioner for their payment aforesaid, in favor of the United States, upon the said real or personal property of such manufacturer, and such lien may be enforced by distraint, as provided in the general provisions of this act: *And provided, further*, That in all cases of goods manufactured, in whole or in part, upon commission, or where the material is furnished by one party and manufactured by another, if the manufacturer shall be required to pay under this act the tax hereby imposed, such person or persons so paying the same shall be entitled to collect the amount thereof of the owner or owners, and shall have a lien for the amount thus paid upon the manufactured goods: *And provided, further*, That the taxes on all articles manufactured and sold, in pursuance of contracts bona fide made before the passage of this act, shall be paid by the purchasers thereof under regulations to be established by the Commissioner of Internal Revenue.

SEC. 70. *And be it further enacted*, That for neglect or refusal to pay the duties provided by this act on manufactured articles, as aforesaid, the goods, wares, and merchandise manufactured and unsold by such manufacturer shall be forfeited to the United States, and may be sold or disposed of for the benefit of the same, in manner as shall be prescribed by the Commissioner of Internal Revenue, under the direction of the Secretary of the Treasury. In such case the collector or deputy collector may take possession of said articles, and may maintain such possession in the premises and buildings where they may have been manufactured, or deposited, or may be. He shall summon, giving notice of not less than two nor more than ten days, the parties in possession of said goods, enjoining them to appear before the assessor, or assistant assessor, at a day and hour in such summons fixed, then and there to show cause, if any there be, why, for such neglect or refusal, such articles should not be declared forfeited to the United States. Such persons or parties interested shall be deemed to be the manufacturers of the same, if the articles shall be at the time of taking such possession upon the premises where manufactured; if they shall at such time have been removed from the place of manufacture, the parties interested shall be deemed to be the person in whose custody or possession the articles shall then be. Such summons shall be served upon such parties in person, or by leaving a copy thereof at the place of abode or business of the party to whom the same may be

directed. In case no such party or place can be found, which fact shall be determined by the collector's return on the summons, such notice, in the nature of a summons, shall be given by advertisement for the term of three weeks in one newspaper in the county nearest to the place of such sale. If at or before such hearing such duties shall not have been paid, and the assessor or assistant assessor shall adjudge the summons and notice, service and return of the same to be sufficient, the said articles shall be declared forfeit, and shall be sold, disposed of, or turned over to the use of any department of the government as may be directed by the Secretary of the Treasury, who may require of any officer of the government into whose possession the same may be turned over the proper vouchers therefor: *Provided*, That the proceeds of the sale of said articles, if any there be after deducting the duties thereon, together with the expenses of summons, advertising, and sale, or the excess of the value of said articles, after deducting the duties and expenses accrued thereon when turned over to the use of any department of the government, shall be refunded and paid to the manufacturer, or to the person in whose custody or possession the articles were when seized. The Commissioner of Internal Revenue, with the approval of the Secretary of the Treasury, may review any such case of forfeiture and do justice in the premises. If the forfeiture shall have been wrongly declared, and sale made, the Secretary is hereby authorized, in case the specific articles cannot be restored to the party aggrieved in as good order and condition as when seized, to make up to such party in money his loss and damage from the contingent fund of his department. Immediate return of seizures so forfeited shall be made to the Commissioner of Internal Revenue by the collector or deputy collector who shall make any such seizure. Articles which the collector may adjudge perishable may be sold or disposed of before declaration of forfeiture. Said sales shall be made at public auction, and notice thereof shall be given in the same manner as is provided in this section in case of forfeiture.

SEC. 71. *And be it further enacted*, That any violation of, or refusal to comply with, the provisions of the sixty-eighth section of this act, shall be good cause for seizure and forfeiture, substantially in manner as detailed in the section next preceding this, of all manufactured articles liable to be assessed under the provisions of this act, and not otherwise provided for; and such violation or refusal to comply shall further make any party so violating or refusing to comply liable to a fine of five hundred dollars, to be recovered in manner and form as provided in this act.

SEC. 72. *And be it further enacted*, That in case of the manufacture and sale or delivery of any goods, wares, merchandise, or articles as hereinafter mentioned, without compliance on the part of the party manufacturing the same with all or any of the requirements and regulations prescribed in this act in relation thereto, the assistant assessor may, upon such information as he may have, assume and estimate the amount and value of such manufactures, and upon such assumed amount assess the duties, and said duties shall be collected in like manner as in case the provisions of this act in relation thereto had been complied with, and to such articles all the foregoing provisions for liens, fines, penalties, and forfeitures, shall in like manner apply.

SEC. 73. *And be it further enacted*, That all goods, wares, and merchandise, or articles manufactured or made by any person or persons not for

sale, but for his, her, or their own use or consumption, and all goods, wares, and merchandise, or articles manufactured or made and sold, except spirituous and malt liquors, and manufactured tobacco, where the annual product shall not exceed the sum of six hundred dollars, shall be and are exempt from duty: *Provided*, That this shall not apply to any business or transaction where one party furnishes the materials, or any part thereof, and employs another party to manufacture, make, or finish the goods, wares, and merchandise or articles, paying or promising to pay therefor, and receiving the goods, wares, and merchandise or articles.

SEC. 74. *And be it further enacted*, That the value and quantity of the goods, wares, and merchandise required to be stated, as aforesaid, and subject to an ad valorem duty, shall be estimated by the actual sales made by the manufacturer, or by his, her, or their agent, or person or persons acting in his, her, or their behalf; and where such goods, wares, or merchandise have been removed for consumption, or for delivery to others, or placed on shipboard, or are no longer within the custody and control of the manufacturer or manufacturers, or his or their agent, not being in his, her, or their factory, store, or warehouse, the value shall be estimated by the average of the market value of the like goods, wares, and merchandise, during the time when the same would have become liable to and charged with duty.

SEC. 75. *And be it further enacted*, That from and after the said first day of August, eighteen hundred and sixty-two, upon the articles, goods, wares, and merchandise, hereinafter mentioned, which shall thereafter be produced and sold, or be manufactured or made and sold, or removed for consumption, or for delivery to other than agents of the manufacturer or producer within the United States or Territories thereof, there shall be levied, collected, and paid the following duties, to be paid by the producer or manufacturer thereof, that is to say:

- On candles, of whatever material made, three per centum ad valorem;
- On all mineral coals, except such as are known in the trade as pea coal and dust coal, three and-a-half cents per ton: *Provided*, That for all contracts of lease of coal lands made before the first day of April, eighteen hundred and sixty-two, the lessee shall pay the tax.
- On lard oil, mustard-seed oil, linseed oil, and on all animal or vegetable oils not exempted nor provided for elsewhere, whether pure or adulterated, two cents per gallon: *Provided*, That red oil or oleic acid, produced in the manufacture of candles, and used as a material in the manufacture of soap, paraffine, whale and fish oil, shall be exempted from this duty;
- On gas, illuminating, made of coal, wholly or in part, or any material, when the product shall not be above five hundred thousand cubic feet per month, five cents per one thousand cubic feet; when the product shall be above five hundred thousand, and not exceeding five millions of cubic feet per month, ten cents per one thousand cubic feet; when the product shall be above five millions, fifteen cents per one thousand cubic feet; and the general average of the monthly product for the year preceding the return required by this act shall regulate the rate of duty herein imposed; and where any gas company shall not have been in operation for the year next preceding the return as aforesaid, then the rate shall be regulated upon the estimated average of the monthly product: *Provided*, That the pro-

- duct required to be returned by this act shall be understood to be the product charged in the bills actually rendered by any gas company during the month preceding the return, and all gas companies are hereby authorized to add the duty or tax imposed by this act to the price per thousand cubic feet on gas sold: *Provided, further*, That all gas furnished for lighting street lamps, and not measured, and all gas made for and used by any hotel, inn, tavern, and private dwelling-house, shall be subject to duty, and may be estimated; and and if the returns in any case shall be understated or under estimated, it shall be the duty of the assistant assessor of the district to increase the same as he shall deem just and proper: *And provided, further*, That coal tar produced in the manufacture of illuminating gas, and the products of the redistillation of coal tar thus produced, shall be exempt from duty: *And provided, further*, That gas companies so located as to compete with each other shall pay the rate imposed by this act upon the company having the largest production.
- On coal illuminating oil, refined, produced by the distillation of coal, asphaltum, shale, peat, petroleum, or rock oil, and all other bituminous substances used for like purposes, ten cents per gallon: *Provided*, That such oil refined and produced by the distillation of coal exclusively shall be subject to pay a duty of eight cents per gallon, anything in this act to the contrary notwithstanding: *And provided, further*, That distillers of coal oil shall be subject to all the provisions of this act hereinbefore set forth and specified applicable to distillers of spirituous liquors, with regard to licenses, bonds, returns, and all other provisions designed for the purpose of ascertaining the quantity distilled, and securing the payment of duties, so far as the same may, in the judgment of the Commissioner of Internal Revenue, and under regulations prescribed by him, be necessary for that purpose.
- On ground coffee, and all preparations of which coffee forms a part, or which is prepared for sale as a substitute for coffee, three mills per pound;
- On ground pepper, ground mustard, ground pimento, ground cloves, ground cassia, and ground ginger, and all imitations of the same, one cent per pound;
- On sugar, refined, whether loaf, lump, granulated, or pulverized, two mills per pound;
- On sugar, refined or made from molasses, sirup of molasses, melado or concentrated melado, two mills per pound;
- On all brown, Muscovado, or clarified sugars produced directly from the sugar cane, and not from sorghum or imphee, other than those produced by the refiner, one cent per pound;
- On sugar candy and all confectionery, made wholly or in part of sugar, one cent per pound;
- On chocolate, and cocoa prepared, one cent per pound;
- On saleratus and bicarbonate of soda, five mills per pound;
- On starch, made of potatoes, one mill per pound; made of corn or wheat, one and-a-half mills per pound; made of rice or any other material, four mills per pound;
- On tobacco, cavendish, plug, twist, fine cut, and manufactured of all descriptions, (not including snuff, cigars, and smoking tobacco prepared

- with all the stems in, or made exclusively of stems,) valued at more than thirty cents per pound, fifteen cents per pound; valued at any sum not exceeding thirty cents per pound, ten cents per pound;
- On smoking tobacco prepared with all the stems in, five cents per pound;
- On smoking tobacco made exclusively of stems, two cents per pound;
- On snuff manufactured of tobacco, ground, dry, or damp, of all descriptions, twenty cents per pound;
- On cigars, valued at not over five dollars per thousand, one dollar and fifty cents per thousand;
- On cigars, valued at over five and not over ten dollars per thousand, two dollars per thousand;
- On cigars, valued at over ten and not over twenty dollars per thousand, two dollars and fifty cents per thousand;
- On cigars, valued at over twenty dollars per thousand, three dollars and fifty cents per thousand;
- On gunpowder, and all explosive substances used for mining, blasting, artillery, or sporting purposes, when valued at eighteen cents per pound or less, five mills per pound; when valued at above eighteen cents per pound, and not exceeding thirty cents per pound, one cent per pound; and when valued at above thirty cents per pound, six cents per pound;
- On white lead, twenty-five cents per one hundred pounds;
- On oxide of zinc, twenty-five cents per one hundred pounds;
- On sulphate of barytes, ten cents per one hundred pounds: *Provided*, That white lead, oxide of zinc, and sulphate of barytes, or any one of them, shall not be subject to any additional duty in consequence of being mixed or ground with linseed oil, when the duties upon all the materials so mixed or ground shall have been previously actually paid;
- On all paints and painters' colors, dry or ground in oil, or in paste with water, not otherwise provided for, five per centum ad valorem;
- On clock movements made to run one day, five cents each; made to run more than one day, ten cents each;
- On pins, solid head or other, five per centum ad valorem;
- On umbrellas and parasols made of cotton, silk, or other material, five per centum ad valorem;
- On screws, commonly called wood screws, one and a half cent per pound;
- On railroad iron and all other iron advanced beyond slabs, blooms, or loops, and not advanced beyond bars or rods, and band, hoop, and sheet iron, not thinner than number eighteen wire-gauge, and plate iron not less than one-eighth of an inch in thickness, one dollar and fifty cents per ton; on railroad iron, re-rolled, seventy-five cents per ton; on band, hoop, and sheet iron, thinner than number eighteen wire-gauge, plate iron less than one-eighth of an inch in thickness, and cut nails and spikes, two dollars per ton: *Provided*, That bars, rods, bands, hoops, sheets, plates, nails, and spikes, manufactured from iron upon which the duty of one dollar and fifty cents has been levied and paid, shall be subject only to a duty of fifty cents per ton in addition thereto, anything in this act to the contrary notwithstanding. On stoves and hollow ware, one dollar and fifty cents per ton of two thousand pounds; cast iron used for bridges, buildings, or other permanent structures, one dollar per ton: *Provided*, That bar

- iron used for like purposes shall be charged no additional duty beyond the specific duty imposed by this act. On steel in ingots, bars, sheets, or wire not less than one-fourth of an inch in thickness, valued at seven cents per pound or less, four dollars per ton; valued at above seven cents per pound, and not above eleven cents per pound, eight dollars per ton; valued above eleven cents per pound, ten dollars per ton;
- On paper of all descriptions, including pasteboard and binders' boards, three per centum ad valorem;
- On soap, castile, palm-oil, erasive, and soap of all other descriptions, white or colored, except soft soap and soap otherwise provided for, valued not above three and-a-half cents per pound, one mill per pound; valued at above three and-a-half cents per pound, five mills per pound;
- On soap, fancy, scented, honey, cream, transparent, and all descriptions of toilet and shaving soap, two cents per pound;
- On salt, four cents per one hundred pounds;
- On pickles and preserved fruits, and on all preserved meats, fish, and shell-fish in cans or air-tight packages, five per centum ad valorem;
- On glue and gelatine of all descriptions, in the solid state, five mills per pound;
- On glue and cement, made wholly or in part of glue, to be sold in the liquid state, twenty-five cents per gallon;
- On patent or enamelled leather, five mills per square foot;
- On patent Japanned split, used for dasher leather, four mills per square foot;
- On patent or enamelled skirting leather, one and-a-half cent per square foot;
- On all sole and rough or harness leather, made from hides, imported east of the Cape of Good Hope, and all damaged leather, five mills per pound;
- On all other sole or rough leather, hemlock tanned, and harness leather, seven mills per pound;
- On all sole or rough leather, tanned in whole or in part with oak, one cent per pound;
- On all finished or curried upper leather, made from leather tanned in the interest of the parties finishing or currying such leather not previously taxed in the rough, except calf skins, one cent per pound;
- On bend and butt leather, one cent per pound;
- On offal leather, five mills per pound;
- On oil-dressed leather, and deer skins dressed or smoked, two cents per pound;
- On tanned calf skins, six cents each;
- On morocco, goat, kid, or sheep skins, curried, manufactured, or finished, four per centum ad valorem: *Provided*, That the price at which such skins are usually sold shall determine their value;
- On horse and hog skins tanned and dressed, four per centum ad valorem;
- On American patent calf skins, five per centum ad valorem;
- On conducting hose of all kinds for conducting water or other fluids, a duty of three per centum ad valorem;
- On wine, made of grapes, five cents per gallon;
- On varnish, made wholly or in part of gum copal or other gums or substances, five per centum ad valorem;
- On furs of all descriptions, when made up or manufactured, three per centum ad valorem;

- On cloth and all textile or knitted or felted fabrics of cotton, wool, or other materials, before the same has been dyed, printed, bleached, or prepared in any other manner, a duty of three per centum ad valorem: *Provided*, That thread or yarn manufactured and sold or delivered exclusively for knitted fabrics, or for weaving, when the spinning and weaving for the manufacture of cloth of any kind is carried on separately, shall not be regarded as manufactures within the meaning of this act; but all fabrics of cotton, wool, or other material, whether woven, knit, or felted, shall be regarded as manufactures, and be subject to the duty, as above, of three per centum ad valorem;
- On all diamonds, emeralds, and all other jewelry, a tax of three per centum ad valorem;
- On and after the first day of October, eighteen hundred and sixty-two, there shall be levied, collected, and paid, a tax of one-half of one cent per pound on all cotton held or owned by any person or persons, corporation, or association of persons; and such tax shall be a lien thereon in the possession of any person whomsoever. And further, if any person or persons, corporations, or association of persons, shall remove, carry, or transport the same from the place of its production before said tax shall have been paid, such person or persons, corporation, or association of persons, shall forfeit, and pay to the United States double the amount of such tax, to be recovered in any court having jurisdiction thereof: *Provided, however*, That the Commissioner of Internal Revenue is hereby authorized to make such rules and regulations as he may deem proper for the payment of said tax at places different from that of the production of said cotton: *And provided, further*, That all cotton owned and held by any manufacturer of cotton fabrics on the first day [of] October, eighteen hundred and sixty-two, and prior thereto, shall be exempt from the tax hereby imposed;
- On all manufactures of cotton, wool, silk, worsted, flax, hemp, jute, India-rubber, gutta-percha, wood, willow, glass, pottery-ware, leather, paper, iron, steel, lead, tin, copper, zinc, brass, gold, silver, horn, ivory, bone, bristles, wholly or in part, or of other materials, not in this act otherwise provided for, a duty of three per centum ad valorem: *Provided*, That on all cloths dyed, printed, bleached, manufactured into other fabrics, or otherwise prepared, on which a duty or tax shall have been paid before the same were so dyed, printed, bleached, manufactured, or prepared, the said duty or tax of three per centum shall be assessed only upon the increased value thereof: *And provided, further*, That on all oil-dressed leather, and deer skins dressed or smoked, manufactured into gloves, mittens, or other articles on which a duty or tax shall have been paid before the same were so manufactured, the said duty or tax of three per centum shall be assessed only upon the increased valuation thereof: *And provided, further*, That in estimating the duties upon articles manufactured when removed and sold at any other place than the place of manufacture, there shall be deducted from the gross amount of sales the freight, commission, and expenses of sale actually paid, and the duty shall be assessed and paid upon the net amount after the deductions, as aforesaid: *And provided, further*, That printed books, magazines,

pamphlets, newspapers, reviews, and all other similar printed publications; boards, shingles, and all other lumber and timber; staves, hoops, headings, and timber only partially wrought and unfinished for chairs, tubs, pails, snathes, lasts, shovel and fork handles; umbrella stretchers; pig iron, and iron not advanced beyond slabs, blooms, or loops; maps and charts; charcoal; alcohol made or manufactured of spirits or materials upon which the duties imposed by this act shall have been paid; plaster or gypsum; malt; burning fluid; printers' ink; flax prepared for textile or felting purposes, until actually woven or fitted into fabrics for consumption; all flour and meal made from grain; bread and breadstuffs; pearl barley and split peas; butter; cheese; concentrated milk; bullion, in the manufacture of silverware; brick; lime; Roman cement; draining tiles; marble; slate; building stone; copper, in ingots or pigs; and lead, in pigs or bars, shall not be regarded as manufactures within the meaning of this act: *Provided*, That whenever, by the provisions of this act, a duty is imposed upon any article removed for consumption or sale, it shall apply only to such articles as are manufactured on or after the first day of August, eighteen hundred and sixty-two, and to such as are manufactured and not removed from the place of manufacture prior to that date.

AUCTION SALES.

SEC. 76. *And be it further enacted*, That on and after the first day of August, eighteen hundred and sixty-two, there shall be levied, collected, and paid on all sales of real estate, goods, wares, merchandise, articles, or things at auction, including all sales of stocks, bonds, and other securities, a duty of one-tenth of one per centum on the gross amount of such sales, and every auctioneer making such sales, as aforesaid, shall at the end of each and every month, or within ten days thereafter, make a list or return to the assistant assessor of the district of the gross amount of such sales, made as aforesaid, with the amount of duty which has accrued, or should accrue thereon, which list shall have annexed thereto a declaration under oath or affirmation, in form and manner as may be prescribed by the Commissioner of Internal Revenue, that the same is true and correct, and shall at the same time, as aforesaid, pay to the collector or deputy collector the amount of duty or tax thereupon, as aforesaid, and in default thereof shall be subject to and pay a penalty of five hundred dollars. In all cases of delinquency in making said list or payment the assessment and collection shall be made in the manner prescribed in the general provisions of this act: *Provided*, That no duty shall be levied under the provisions of this section upon any sales by judicial or executive officers making auction sales by virtue of a judgment or decree of any court, nor to public sales made by executors or administrators.

CARRIAGES, YACHTS, BILLIARD TABLES, AND PLATE.

SEC. 77. *And be it further enacted*, That from and after the first day of May, eighteen hundred and sixty-two, there shall be levied, collected, and paid, by any person or persons owning, possessing, or keeping any carriage, yacht, and billiard table, the several duties or sums of money set down in figures against the same respectively, or otherwise specified and set forth in schedule marked A.

SCHEDULE A.

CARRIAGES, YACHTS, BILLIARD TABLES, AND PLATE.

	Duty. Dolla. cts.
Carriage, gig, chaise, phaeton, wagon, buggy wagon, carryall, rock-away, or other like carriage, the body of which rests upon springs of any description, kept for use, and which shall not be exclusively employed in husbandry or for the transportation of merchandise, and valued at seventy-five dollars or over, including the harness used therewith, when drawn by one horse, one dollar.....	1 00
Carriages of like description drawn by two horses, and any coach, hackney-coach, omnibus, or four wheel carriage, the body of which rests upon springs of any description, which may be kept for use, for hire, or for passengers, and which shall not be exclusively employed in husbandry or for the transportation of merchandise, valued at seventy-five dollars, and not exceeding two hundred dollars, including the harness used therewith, drawn by two horses or more, two dollars.....	2 00
Carriages of like description, when valued above two hundred dollars, and not exceeding six hundred dollars, five dollars.....	5 00
Carriages of like description, valued above six hundred dollars, ten dollars.....	10 00
Pleasure or racing vessels, known as yachts, whether by sail or steam, under the value of six hundred dollars, five dollars...	5 00
Yachts valued above six hundred dollars, and not exceeding one thousand dollars, ten dollars.....	10 00
And for each additional one thousand dollars in value of said yachts, ten dollars.....	10 00
Billiard tables, kept for use, ten dollars.....	10 00
Plate of gold, kept for use, per ounce troy, fifty cents.....	50
Plate of silver, kept for use, per ounce troy, three cents.....	3
<i>Provided</i> , That silver spoons or plate of silver, to an amount not exceeding forty ounces, as aforesaid, belonging to any one person, shall be exempt from duty.	

SLAUGHTERED CATTLE, HOGS, AND SHEEP.

SEC. 78. *And be it further enacted*, That on and after the first day of August, eighteen hundred and sixty-two, there shall be levied, collected, and paid by any person or persons, firms, companies, or agents, or employees thereof, the following duties or taxes, that is to say:

- On all horned cattle exceeding eighteen months old, slaughtered for sale, thirty cents per head;
- On all calves and cattle under eighteen months old, slaughtered for sale, five cents per head;
- On all hogs, exceeding six months old, slaughtered for sale, when the number thus slaughtered exceeds twenty in any one year, ten cents per head;
- On all sheep, slaughtered for sale, five cents per head: *Provided*, That all cattle, hogs, and sheep, slaughtered by any person for his or her own consumption, shall be exempt from duty.

SEC. 79. *And be it further enacted*, That on and after the date on which this act shall take effect, any person or persons, firms, or companies, or agents or employees thereof, whose business or occupation it is to slaughter for sale any cattle, calves, sheep, or hogs, shall be required to make and render a list at the end of each and every month to the assistant assessor of the district where the business is transacted, stating the number of cattle, calves, if any, the number of hogs, if any, and the number of sheep, if any, slaughtered, as aforesaid, with the several rates of duty as fixed therein in this act, together with the whole amount thereof, which list shall have annexed thereto a declaration of said person or persons, agents, or employees thereof, as aforesaid, under oath or affirmations, in such manner and form as may be prescribed by the Commissioner of Internal Revenue, that the same is true and correct, and shall, at the time of rendering said list, pay the full amount of duties which have accrued or should accrue, as aforesaid, to the collector or deputy collector of the district, as aforesaid; and in case of default in making the return or payment of the duties, as aforesaid, the assessment and collection shall be made as in the general provisions of this act required, and in case of fraud or evasion the party offending shall forfeit and pay a penalty of ten dollars per head for any cattle, calves, hogs, or sheep so slaughtered upon which the duty is fraudulently withheld, evaded, or attempted to be evaded: *Provided*, That the Commissioner of Internal Revenue shall prescribe such further rules and regulations as he may deem necessary for ascertaining the correct number of cattle, calves, hogs, and sheep, liable to be taxed under the provisions of this act.

RAILROADS, STEAMBOATS, AND FERRY BOATS.

SEC. 80. *And be it further enacted*, That on and after the first day of August, eighteen hundred and sixty-two, any person or persons, firms, companies, or corporations, owning or possessing, or having the care or management of any railroad or railroads upon which steam is used as a propelling power, or of any steamboat or other vessel propelled by steam-power, shall be subject to and pay a duty of three per centum on the gross amount of all the receipts of such railroad or railroads, or steam vessel for the transportation of passengers over and upon the same, and any person or persons, firms, companies, or corporations, owning or possessing, or having the care or management of any railroad or railroads using any other power than steam thereon, or owning, possessing, or having the care or management of any ferry boat, or vessel used as a ferry boat, propelled by steam or horse power, shall be subject to and pay a duty of one and-a-half per centum upon the gross receipts of such railroad or ferry boat, respectively, for the transportation of passengers over and upon said railroads, steamboats, and ferry boats respectively; and any person or persons, firms, companies, or corporations, owning, possessing, or having the care or management of any bridge authorized by law to receive toll for the transit of passengers, beasts, carriages, teams, and freight of any description over such bridge, shall be subject to and pay a duty of three per centum on the gross amount of all their receipts of every description. And the owner, possessor, or person or persons having the care and management of any such railroad, steamboat, ferry boat, or other vessel, or bridge, as aforesaid, shall, within five days after the end of each

and every month, commencing as hereinbefore mentioned, make a list or return to the assistant assessor of the district within which such owner, possessor, company, or corporation may have his or its place of business, or where any such railroad, steamboat, ferry boat, or bridge is located or belongs, respectively, stating the gross amount of such receipts for the month next preceding, which return shall be verified by the oath or affirmation of such owner, possessor, manager, agent, or other proper officer, in the manner and form to be prescribed from time to time by the Commissioner of Internal Revenue, and shall also, monthly, at the time of making such return, pay to the collector or deputy collector of the district the full amount of duties which have accrued on such receipts for the month aforesaid; and in case of neglect or refusal to make said lists or return for the space of five days after such return should be made, as aforesaid, the assessor or assistant assessor shall proceed to estimate the amount received and the duties payable thereon, as hereinbefore provided in other cases of delinquency to make return for purposes of assessment; and for the purpose of making such assessment, or of ascertaining the correctness of any such return, the books of any such person, company, or corporation shall be subject to the inspection of the assessor or assistant assessor on his demand or request therefor; and in case of neglect or refusal to pay the duties, as aforesaid, when the same have been ascertained as aforesaid for the space of five days after the same shall have become payable, the owner, possessor, or person having the management, as aforesaid, shall pay, in addition, five per centum on the amount of such duties, the said owner, possessor, or person having the care or management, as aforesaid, shall be liable to pay a penalty of one thousand dollars for every such attempt, to be recovered as provided in this act for the recovery of penalties; and all provisions of this act in relation to liens and collections by distraint not incompatible herewith shall apply to this section and the objects therein embraced: *Provided*, That all such persons, companies, and corporations shall have the right to add the duty or tax imposed hereby to their rates of fare whenever their liability thereto may commence, any limitations which may exist by law or by agreement with any person or company which may have paid or be liable to pay such fare to the contrary notwithstanding.

RAILROAD BONDS.

SEC. 81. *And be it further enacted*, That on and after the first day of July, eighteen hundred and sixty-two, any person or persons owning or possessing, or having the care or management of any railroad company or railroad corporation, being indebted for any sum or sums of money for which bonds or other evidences of indebtedness have been issued, payable in one or more years after date, upon which interest is, or shall be, stipulated to be paid, or coupons representing the interest shall be or shall have been issued to be paid, and all dividends in scrip or money or sums of money thereafter declared due or payable to stockholders of any railroad company, as part of the earnings, profits, or gains of said companies, shall be subject to and pay a duty of three per centum on the amount of all such interest or coupons or dividends whenever the same shall be paid; and said railroad companies or railroad corporations, or any person or persons owning, possessing, or having the care or management of

any railroad company or railroad corporation, are hereby authorized and required to deduct and withhold from all payments made to any person, persons, or party, after the first day of July, as aforesaid, on account of any interest or coupons or dividends due and payable as aforesaid, the said duty or sum of three per centum; and the duties deducted, as aforesaid, and certified by the president or other proper officer of said company or corporation, shall be a receipt and discharge, according to the amount thereof, of said railroad companies or railroad corporations, and the owners, possessors, and agents thereof, on dividends and on bonds or other evidences of their indebtedness, upon which interest or coupons are payable, holden by any person or party whatsoever, and a list or return shall be made and rendered within thirty days after the time fixed when said interest or coupons or dividends become due or payable, and as often as every six months, to the Commissioner of Internal Revenue, which shall contain a true and faithful account of the duties received and chargeable, as aforesaid, during the time when such duties have accrued or should accrue, and remaining unaccounted for; and there shall be annexed to every such list or return a declaration under oath or affirmation in manner and form as may be prescribed by the Commissioner of Internal Revenue, of the president, treasurer, or some proper officer of said railroad company or railroad corporation, that the same contains a true and faithful account of the duties so withheld and received during the time when such duties have accrued or should accrue, and not accounted for, and for any default in the making or rendering of such list or return, with the declaration annexed, as aforesaid, the person or persons owning, possessing, or having the care or management of such railroad company or railroad corporation, making such default, shall forfeit, as a penalty, the sum of five hundred dollars; and in case of any default in making or rendering said list, or of any default in the payment of the duty, or any part thereof, accruing or which should accrue, the assessment and collection shall be made according to the general provisions of this act.

BANKS, TRUST COMPANIES, SAVINGS INSTITUTIONS, AND INSURANCE COMPANIES.

SEC. 82. *And be it further enacted*, That on and after the first day of July, eighteen hundred and sixty-two, there shall be levied, collected, and paid by all banks, trust companies, and savings institutions, and by all fire, marine, life, inland, stock, and mutual insurance companies, under whatever style or name known or called, of the United States or Territories, specially incorporated or existing under general laws, or which may be hereafter incorporated or exist, as aforesaid, on all dividends in scrip or money thereafter declared due or paid to stockholders, to policy holders, or to depositors, as part of the earnings, profits, or gains of said banks, trust companies, savings institutions, or insurance companies, and on all sums added to their surplus or contingent funds, a duty of three per centum: *Provided*, That the duties upon the dividends of life insurance companies shall not be deemed due, or to be collected until such dividends shall be payable by such companies. And said banks, trust companies, savings institutions, and insurance companies are hereby authorized and required to deduct and withhold from all payments made to any person, persons, or party, on account of any dividends or sums of

money that may be due and payable, as aforesaid, after the first day of July, eighteen hundred and sixty-two, the said duty of three per centum. And a list or return shall be made and rendered within thirty days after the time fixed when such dividends or sums of money shall be declared due and payable, and as often as every six months, to the Commissioner of Internal Revenue, which shall contain a true and faithful account of the amount of duties accrued or which should accrue from time to time, as aforesaid, during the time when such duties remain unaccounted for, and there shall be annexed to every such list or return a declaration, under oath or affirmation, to be made in form and manner as shall be prescribed by the Commissioner of Internal Revenue, of the president, or some other proper officer of said bank, trust company, savings institution, or insurance company, respectively, that the same contains a true and faithful account of the duties which have accrued or should accrue, and not accounted for, and for any default in the delivery of such list or return, with such declaration annexed, the bank, trust company, savings institution, or insurance company making such default shall forfeit, as a penalty, the sum of five hundred dollars.

SEC. 83. *And be it further enacted*, That any person or persons owning or possessing, or having the care or management of any railroad company or railroad corporation, bank, trust company, savings institution, or insurance company, as heretofore mentioned, required under this act to make and render any list or return to the Commissioner of Internal Revenue, shall, upon rendering the same, pay to the said Commissioner of Internal Revenue the amount of the duties due on such list or return, and in default thereof, shall forfeit, as a penalty, the sum of five hundred dollars; and in case of neglect or refusal to make such list or return, as aforesaid, or to pay the duties, as aforesaid, for the space of thirty days after the time when said list should have been made and rendered, or when said duties shall have become due and payable, the assessment and collection shall be made according to the general provisions heretofore prescribed in this act.

SEC. 84. *And be it further enacted*, That on the first day of October, Anno Domini, eighteen hundred and sixty-two, and on the first day of each quarter of a year thereafter, there shall be paid by each insurance company, whether inland or marine, and by each individual or association engaged in the business of insurance from loss or damage by fire, or by the perils of the sea, the duty of one per centum upon the gross receipts for premiums and assessments by such individual, association, or company during the quarter then preceding; and like duty shall be paid by the agent of any foreign insurance company having an office or doing business within the United States.

SEC. 85. *And be it further enacted*, That on the first day of October next, and on the first day of each quarter thereafter, an account shall be made and rendered to the Commissioner of Internal Revenue by all insurance companies, or their agents, or associations, or individuals making insurance, except life insurance, including agents of all foreign insurance companies, which shall contain a true and faithful account of the insurance made, renewed, or continued, or indorsed upon any open policy by said companies, or their agents, or associations, or individuals during the preceding quarter, setting forth the amount insured, and the gross amount received, and the duties accruing thereon under this act; and there shall

be annexed to and delivered with every such quarterly account an affidavit, in the form prescribed by the Commissioner of Internal Revenue, made by one of the officers of said company or association, or individual, or by the agent in the case of a foreign company, that the statements in said accounts are in all respects just and true; and such quarterly accounts shall be rendered to the Commissioner of Internal Revenue within thirty days after the expiration of the quarter for which they shall be made up, and upon rendering such account, with such affidavit, as aforesaid, thereto annexed, the amount of the duties due by such quarterly accounts shall be paid to the Commissioner of Internal Revenue; and for every default in the delivery of such quarterly account, with such affidavit annexed thereto, or in the payment of the amount of the duties due by such quarterly account, the company, or agent, or association, or individual making such default shall forfeit and pay, in addition to such duty, the sum of five thousand dollars.

SALARIES AND PAY OF OFFICERS AND PERSONS IN THE SERVICE OF THE UNITED STATES, AND PASSPORTS.

SEC. 86. *And be it further enacted*, That on and after the first day of August, eighteen hundred and sixty-two, there shall be levied, collected, and paid on all salaries of officers, or payments to persons in the civil, military, naval, or other employment or service of the United States, including senators and representatives and delegates in Congress, when exceeding the rate of six hundred dollars per annum, a duty of three per centum on the excess above the said six hundred dollars; and it shall be the duty of all paymasters, and all disbursing officers, under the government of the United States, or in the employ thereof, when making any payments to officers and persons as aforesaid, or upon settling and adjusting the accounts of such officers and persons, to deduct and withhold the aforesaid duty of three per centum, and shall, at the same time, make a certificate stating the name of the officer or person from whom such deduction was made, and the amount thereof, which shall be transmitted to the office of the Commissioner of Internal Revenue, and entered as part of the internal duties; and the pay-roll, receipts, or account of officers or persons paying such duty, as aforesaid, shall be made to exhibit the fact of such payment.

SEC. 87. *And be it further enacted*, That for every passport issued from the office of the Secretary of State, after the thirtieth day of June, eighteen hundred and sixty-two, there shall be paid the sum of three dollars; which amount may be paid to any collector appointed under this act, and his receipt therefor shall be forwarded with the application for such passport to the office of the Secretary of State, or any agent appointed by him. And the collectors shall account for all moneys received for passports in the manner hereinbefore provided, and a like amount shall be paid for every passport issued by any minister or consul of the United States, who shall account therefor to the treasury.

ADVERTISEMENTS.

SEC. 88. *And be it further enacted*, That on and after the first day of August, eighteen hundred and sixty-two, there shall be levied, collected,

and paid by any person or persons, firm, or company, publishing any newspaper, magazine, review, or other literary, scientific, or news publication, issued periodically, on the gross receipts for all advertisements, or all matters for the insertion of which in said newspaper or other publication, as aforesaid, or in extras, supplements, sheets, or fly-leaves accompanying the same, pay is required or received, a duty of three per centum; and the person or persons, firm or company, owning, possessing, or having the care or management of any and every such newspaper or other publication, as aforesaid, shall make a list or return quarterly, commencing as heretofore mentioned, containing the gross amount of receipts as aforesaid, and the amount of duties which have accrued thereon, and render the same to the assistant assessor of the respective districts where such newspaper, magazine, review, or other literary or news publication is or may be published, which list or return shall have annexed a declaration, under oath or affirmation, to be made according to the manner and form which may be from time to time prescribed by the Commissioner of Internal Revenue, of the owner, possessor, or person having the care or management of such newspaper, magazine, or review, or other publication, as aforesaid, that the same is true and correct, and shall also, quarterly, and at the time of making said list or return, pay to the collector or deputy collector of the district, as aforesaid, the full amount of said duties; and in case of neglect or refusal to comply with any of the provisions contained in this section, or to make and render said list or return, as aforesaid, for the space of thirty days after the time when said list or return ought to have been made, as aforesaid, the assistant assessor of the respective districts shall proceed to estimate the duties, as heretofore provided in other cases of delinquency; and in case of neglect or refusal to pay the duties, as aforesaid, for the space of thirty days after said duties become due and payable, said owner, possessor, or person or persons having the care or management of said newspapers or publications, as aforesaid, shall pay, in addition thereto, a penalty of five per centum on the amount due; and in case of fraud or evasion, whereby the revenue is attempted to be defrauded, or the duty withheld, said owners, possessors, or person or persons having the care or management of said newspapers or other publications, as aforesaid, shall forfeit and pay a penalty of five hundred dollars for each offence, or for any sum fraudulently unaccounted for; and all provisions in this act in relation to liens, assessments, and collection, not incompatible herewith, shall apply to this section and the objects herein embraced: *Provided*, That in all cases where the rate or price of advertising is fixed by any law of the United States, State, or Territory, it shall be lawful for the company, person or persons, publishing said advertisements, to add the duty or tax imposed by this act to the price of said advertisements, any law as aforesaid, to the contrary notwithstanding: *Provided, further*, That the receipts for advertisements to the amount of one thousand dollars, by any person or persons, firm, or company, publishing any newspaper, magazine, review, or other literary, scientific, news publication, issued periodically, shall be exempt from duty: *And provided, further*, That all newspapers whose circulation does not exceed two thousand copies shall be exempted from all taxes for advertisements.

INCOME DUTY.

SEC. 89. *And be it further enacted*, That for the purpose of modifying

and re-enacting, as hereinafter provided, so much of an act, entitled "An act to provide increased revenue from imports to pay interest on the public debt, and for other purposes," approved fifth of August, eighteen hundred and sixty-one, as relates to income tax; that is to say, sections forty-nine, fifty, (except so much thereof as relates to the selection and appointment of depositaries,) and fifty-one, be, and the same are hereby repealed.

SEC. 90. *And be it further enacted*, That there shall be levied, collected, and paid annually, upon the annual gains, profits, or income of every person residing in the United States, whether derived from any kind of property, rents, interest, dividends, salaries, or from any profession, trade, employment, or vocation carried on in the United States or elsewhere, or from any other source whatever, except as hereinafter mentioned, if such annual gains, profits, or income exceed the sum of six hundred dollars, and do not exceed the sum of ten thousand dollars, a duty of three per centum on the amount of such annual gains, profits, or income over and above the said sum of six hundred dollars; if said income exceeds the sum of ten thousand dollars, a duty of five per centum upon the amount thereof exceeding six hundred dollars; and upon the annual gains, profits, or income, rents, and dividends accruing upon any property, securities, and stocks owned in the United States by any citizen of the United States residing abroad, except as hereinafter mentioned, and not in the employment of the government of the United States, there shall be levied, collected, and paid a duty of five per centum.

SEC. 91. *And be it further enacted*, That in estimating said annual gains, profits, or income, whether subject to a duty as provided in this act, of three per centum, or of five per centum, all other national, State, and local taxes, lawfully assessed upon the property or other sources of income of any person as aforesaid, from which said annual gains, profits, or income of such person is or should be derived, shall be first deducted from the gains, profits, or income of the person or persons who actually pay the same, whether owner or tenant, and all gains, profits, or income derived from salaries of officers, or payments to persons in the civil, military, naval, or other service of the United States, including senators, representatives, and delegates in Congress, above six hundred dollars, or derived from interest or dividends on stock, capital, or deposits in any bank, trust company or savings institution, insurance, gas, bridge, express, telegraph, steamboat, ferry boat, or railroad company, or corporation, or on any bonds, or other evidences of indebtedness of any railroad company or other corporation, which shall have been assessed and paid by said banks, trust companies, savings institutions, insurance, gas, bridge, telegraph, steamboat, ferry boat, express, or railroad companies, as aforesaid, or derived from advertisements, or on any articles manufactured, upon which specific, stamp or ad valorem duties shall have been directly assessed or paid, shall also be deducted; and the duty herein provided for shall be assessed and collected upon the income for the year ending the thirty-first day of December next preceding the time for levying and collecting said duty, that is to say, on the first day of May, eighteen hundred and sixty-three, and in each year thereafter: *Provided*, That upon such portion of said gains, profits, or income, whether subject to a duty as provided in this act of three per centum or five per centum, which shall be derived from interest upon notes, bonds, or other securities of the United States, there shall be levied, collected, and paid a duty

not exceeding one and one-half of one per centum, anything in this act to the contrary notwithstanding.

SEC. 92. *And be it further enacted*, That the duties on incomes herein imposed shall be due and payable on or before the thirtieth day of June, in the year eighteen hundred and sixty-three, and in each year thereafter until and including the year eighteen hundred and sixty-six, and no longer; and to any sum or sums annually due and unpaid for thirty days after the thirtieth of June, as aforesaid, and for ten days after demand thereof by the collector, there shall be levied in addition thereto, the sum of five per centum on the amount of duties unpaid, as a penalty, except from estates of deceased and insolvent persons; and if any person or persons, or party, liable to pay such duty, shall neglect or refuse to pay the same, the amount due shall be a lien in favor of the United States from the time it was so due until paid, with the interest, penalties, and costs that may accrue in addition thereto, upon all the property, and rights to property, stocks, securities, and debts of every description from which the income upon which said duty is assessed or levied shall have accrued or may or should accrue; and in default of the payment of said duty for the space of thirty days, after the same shall have become due, and be demanded as aforesaid, said lien may be enforced by distraint upon such property, rights to property, stock, securities, and evidences of debt, by whomsoever holden; and for this purpose the Commissioner of Internal Revenue, upon the certificate of the collector or deputy collector that said duty is due and unpaid for the space of ten days after notice duly given of the levy of such duty, shall issue a warrant, in form and manner, to be prescribed by said Commissioner of Internal Revenue, under the directions of the Secretary of the Treasury, and by virtue of such warrant there may be levied on such property, rights to property, stocks, securities, and evidences of debt, a further sum, to be fixed and stated in such warrant, over and above the said annual duty, interest, and penalty for non-payment, sufficient for the fees and expenses of such levy. And in all cases of sale, as aforesaid, the certificate of such sale by the collector or deputy collector of the sale, shall give title to the purchaser, of all right, title, and interest of such delinquent in and to such property, whether the property be real or personal; and where the subject of sale shall be stocks, the certificate of said sale shall be lawful authority and notice to the proper corporation, company, or association, to record the same on the books or records, in the same manner as if transferred or assigned by the person or party holding the same, to issue new certificates of stock therefor in lieu of any signal or prior certificates, which shall be void whether cancelled or not; and said certificates of sale of the collector or deputy collector, where the subject of sale shall be securities or other evidences of debt, shall be good and valid receipts to the person or party holding, or claiming to hold, possession of such securities or other evidences of debt.

SEC. 93. *And be it further enacted*, That it shall be the duty of all persons of lawful age, and all guardians and trustees, whether such trustees are so by virtue of their office as executors, administrators, or other fiduciary capacity, to make return in the list or schedule, as provided in this act, to the proper officer of internal revenue, of the amount of his or her income, or the income of such minors or persons as may be held in trust as aforesaid, according to the requirements hereinbefore stated, and in

case of neglect or refusal to make such return, the assessor or assistant assessor shall assess the amount of his or her income, and proceed thereafter to collect the duty thereon in the same manner as is provided for in other cases of neglect and refusal to furnish lists or schedules in the general provisions of this act, where not otherwise incompatible, and the assistant assessor may increase the amount of the list or return, or of any party making such return, if he shall be satisfied that the same is understated: *Provided*, That any party, in his or her behalf, or as guardian or trustee, as aforesaid, shall be permitted to declare, under oath or affirmation, the form and manner of which shall be prescribed by the Commissioner of Internal Revenue, that he or she was not possessed of an income of six hundred dollars, liable to be assessed according to the provisions of this act, or that he or she has been assessed elsewhere and the same year for an income duty, under authority of the United States, and shall thereupon be exempt from an income duty; or, if the list or return of any party shall have been increased by the assistant assessor, in manner as aforesaid, he or she may be permitted to declare, as aforesaid, the amount of his or her annual income, or the amount held in trust, as aforesaid, liable to be assessed, as aforesaid, and the same so declared shall be received as the sum upon which duties are to be assessed and collected.

STAMP DUTIES.

SEC. 94. *And be it further enacted*, That on after the first day of October, eighteen hundred and sixty-two, there shall be levied, collected, and paid, for and in respect of the several instruments, matters, and things mentioned, and described in the schedule (marked B) hereunto annexed, or for or in respect of the vellum, parchment, or paper upon which such instruments, matters, or things, or any of them, shall be written or printed, by any person or persons, or party who shall make, sign, or issue the same, or for whose use or benefit the same shall be made, signed, or issued, the several duties or sums of money set down in figures against the same, respectively, or otherwise specified or set forth in the said schedule.

SEC. 95. *And be it further enacted*, That if any person or persons shall make, sign, or issue, or cause to be made, signed, or issued, any instrument, document, or paper of any kind or description whatsoever, without the same being duly stamped for denoting the duty hereby imposed thereon, or without having thereupon an adhesive stamp to denote said duty, such person or persons shall incur a penalty of fifty dollars, and such instrument, document, or paper, as aforesaid, shall be deemed invalid and of no effect.

SEC. 96. *And be it further enacted*, That no stamp appropriated to denote the duty charged on any particular instrument, and bearing the name of such instrument on the face thereof, shall be used for denoting any other duty of the same amount, or if so used the same shall be of no avail.

SEC. 97. *And be it further enacted*, That no vellum, parchment, or paper, bearing a stamp appropriated by name to any particular instrument, shall be used for any other purpose, or if so used the same shall be of no avail.

SEC. 98. *And be it further enacted*, That if any person shall forge or counterfeit, or cause or procure to be forged or counterfeited, any stamp or die, or any part of any stamp or die, which shall have been provided,

made, or used in pursuance of this act, or shall forge, counterfeit, or resemble, or cause or procure to be forged, counterfeited, or resembled, the impression, or any part of the impression of any such stamp or die, as aforesaid, upon any vellum, parchment, or paper, or shall stamp or mark, or cause or procure to be stamped or marked, any vellum, parchment, or paper, with any such forged or counterfeited stamp or die, or part of any stamp or die, as aforesaid, with intent to defraud the United States of any of the duties hereby imposed, or any part thereof, or if any person shall utter, or sell, or expose to sale, any vellum, parchment, or paper, article, or thing, having thereupon the impression of any such counterfeited stamp or die, or any part of any stamp or die, or any such forged, counterfeited, or resembled impression, or part of impression, as aforesaid, knowing the same respectively to be forged, counterfeited, or resembled; or if any person shall knowingly use any stamp or die which shall have been so provided, made, or used, as aforesaid, with intent to defraud the United States; or if any person shall fraudulently cut, tear, or get off, or cause, or procure to be cut, torn, or got off, the impression of any stamp or die which shall have been provided, made, or used in pursuance of this act, from any vellum, parchment or paper, or any instrument or writing charged or chargeable with any of the duties hereby imposed, then, and in every such case, every person so offending, and every person knowingly and wilfully aiding, abetting, or assisting in committing any such offence, as aforesaid, shall be deemed guilty of felony, and shall, on conviction thereof, forfeit the said counterfeit stamps and the articles upon which they are placed, and be punished by fine not exceeding one thousand dollars, and by imprisonment and confinement to hard labor not exceeding five years.

Sec. 99. *And be it further enacted*, That in any and all cases where an adhesive stamp shall be used for denoting any duty imposed by this act, except as hereinafter provided, the person using or affixing the same shall write thereupon the initials of his name, and the date upon which the same shall be attached or used, so that the same may not again be used. And if any person shall fraudulently make use of an adhesive stamp to denote any duty imposed by this act without so effectually cancelling and obliterating such stamp, except as before mentioned, he, she, or they shall forfeit the sum of fifty dollars: *Provided, nevertheless*, That any proprietor or proprietors of proprietary articles, or articles subject to stamp duty under schedule C of this act, shall have the privilege of furnishing, without expense to the United States, in suitable form, to be approved by the Commissioner of Internal Revenue, his or their own dies or designs for stamps to be used thereon, to be retained in the possession of the Commissioner of Internal Revenue, for his or their separate use, which shall not be duplicated to any other person. That in all cases where such stamp is used, instead of his or their writing his or their initials and the date thereon, the said stamp shall be so affixed on the box, bottle, or package, that in opening the same, or using the contents thereof, the said stamp shall be effectually destroyed; and in default thereof shall be liable to the same penalty imposed for neglect to affix said stamp as hereinbefore prescribed in this act. Any person who shall fraudulently obtain or use any of the aforesaid stamps or designs therefor, and any person forging, or counterfeiting, or causing or procuring the forging or counterfeiting any representation, likeness, similitude or colorable imitation of the

said last-mentioned stamp, or any engraver or printer who shall sell or give away said stamps, or selling the same, or, being a merchant, broker, peddler, or person dealing in whole or in part, in similar goods, wares, merchandise, manufactures, preparations, or articles, or those designed for similar objects or purposes, shall have knowingly or fraudulently in his, her, or their possession any such forged, counterfeited likeness, similitude, or colorable imitation of the said last-mentioned stamp, shall be deemed guilty of a misdemeanor, and, upon conviction thereof, shall be subject to all the penalties, fines, and forfeitures prescribed in section ninety-three of this act.

SEC. 100. *And be it further enacted*, That if any person or persons shall make, sign, or issue, or cause to be made, signed, or issued, or shall accept or pay, or cause to be accepted or paid, with design to evade the payment of any stamp duty, any bill of exchange, draft, or order, or promissory note for the payment of money, liable to any of the duties imposed by this act, without the same being duly stamped, or having thereupon an adhesive stamp for denoting the duty hereby charged thereon, he, she, or they shall, for every such bill, draft, order, or note, forfeit the sum of two hundred dollars.

SEC. 101. *And be it further enacted*, That the acceptor or acceptors of any bill of exchange or order for the payment of any sum of money drawn, or purporting to be drawn, in any foreign country, but payable in the United States, shall, before paying or accepting the same, place thereupon a stamp, indicating the duty upon the same, as the law requires for inland bills of exchange, or promissory notes; and no bill of exchange shall be paid or negotiated without such stamp; and if any person shall pay or negotiate, or offer in payment, or receive or take in payment, any such draft or order, the person or persons so offending shall forfeit the sum of one hundred dollars.

SEC. 102. *And be it further enacted*, That the Commissioner of Internal Revenue be, and is hereby, authorized to sell to and supply collectors, deputy collectors, postmasters, stationers, or any other persons, at his discretion, with adhesive stamps or stamped paper, vellum, or parchment, as herein provided for, upon the payment, at the time of delivery, of the amount of duties said stamps, stamped paper, vellum, or parchment, so sold or supplied, represent, and may thereupon allow and deduct from the aggregate amount of such stamps, as aforesaid, the sum of not exceeding five per centum as commission to the collectors, postmasters, stationers, or other purchasers; but the cost of any paper, vellum, or parchment shall be added to the amount, after deducting the allowance of per centum, as aforesaid: *Provided*, That no commission shall be allowed on any sum or sums so sold or supplied of less amount than fifty dollars: *And provided, further*, That any proprietor or proprietors of articles named in schedule C, who shall furnish his or their own die or design for stamps, to be used especially for his or their own proprietary articles, shall be allowed the following discount, namely: On amounts purchased at one time of not less than fifty nor more than five hundred dollars, five per centum; on amounts over five hundred dollars, ten per centum. The Commissioner of Internal Revenue may from time to time make regulations for the allowance of such of the stamps issued under the provisions of this act as may have been spoiled or rendered useless or unfit for the purpose intended, or for which the owner may have no

use, or which through mistake may have been improperly or unnecessarily used, or where the rates or duties represented thereby have been paid in error, or remitted; and such allowance shall be made either by giving other stamps in lieu of the stamps so allowed for, or by repaying the amount or value, after deducting therefrom, in case of repayment, the sum of five per centum to the owner thereof.

Sec. 103. *And be it further enacted*, That it shall be lawful for any person to present to the Commissioner of Internal Revenue any instrument, and require his opinion whether or not the same is chargeable with any duty; and if the said Commissioner shall be of opinion that such instrument is not chargeable with any stamp duty, it shall be lawful for him, and he is hereby required, to impress thereon a particular stamp, to be provided for that purpose, with such word or words or device thereon as he shall judge proper, which shall signify and denote that such instrument is not chargeable with any stamp duty; and every such instrument upon which the said stamp shall be impressed shall be deemed to be not so chargeable, and shall be received in evidence in all courts of law or equity, notwithstanding any objections made to the same, as being chargeable with stamp duty, and not stamped to denote the same.

Sec. 104. *And be it further enacted*, That on and after the date on which this act shall take effect, no telegraph company or its agent or employee shall receive from any person, or transmit to any person any despatch or message without an adhesive stamp denoting the duty imposed by this act being affixed to a copy thereof, or having the same stamped thereupon, and in default thereof shall incur a penalty of ten dollars: *Provided*, That only one stamp shall be required, whether sent through one or more companies.

Sec. 105. *And be it further enacted*, That on and after the date on which this act shall take effect, no express company or its agent or employee shall receive for transportation from any person any bale, bundle, box, article, or package of any description, without either delivering to the consignor thereof a printed receipt, having stamped or affixed thereon a stamp denoting the duty imposed by this act, or without affixing thereto an adhesive stamp or stamps denoting such duty, and in default thereof shall incur a penalty of ten dollars: *Provided*, That but one stamped receipt or stamp shall be required for each shipment from one party to another party at the same time, whether such shipment consists of one or more packages: *And provided, also*, That no stamped receipts or stamp shall be required for any bale, bundle, box, article, or package transported for the government, nor for such bales, bundles, boxes, or packages as are transported by such companies without charge thereon.

Sec. 106. *And be it further enacted*, That all the provisions of this act relating to dies, stamps, adhesive stamps, and stamp duties shall extend to and include (except where manifestly inapplicable) all the articles or objects enumerated in schedule marked C, subject to stamp duties, and apply to the provisions in relation thereto.

Sec. 107. *And be it further enacted*, That on and after the first day of August, eighteen hundred and sixty-two, no person or persons, firms, companies, or corporations, shall make, prepare, and sell, or remove for consumption or sale, drugs, medicines, preparations, compositions, articles, or things, including perfumery, cosmetics, any playing cards, upon which a duty is imposed by this act, as enumerated and mentioned in schedule

C, without affixing thereto an adhesive stamp or label denoting the duty before mentioned, and in default thereof shall incur a penalty of ten dollars: *Provided*, That nothing in this act contained shall apply to any un-compounded medicinal drug or chemical, nor to any medicine compounded according to the United States or other national pharmacopœia, nor of which the full and proper formula is published in either of the dispensatories, formularies, or text-books in common use among physicians and apothecaries, including homœopathic and eclectic, or in any pharmaceutical journal now used by any incorporated college of pharmacy, and not sold or offered for sale, or advertised under any other name, form, or guise than that under which they may be severally denominated and laid down in said pharmacopœias, dispensatories, text-books, or journals, as aforesaid, nor to medicines sold to or for the use of any person, which may be mixed and compounded specially for said persons, according to the written recipe or prescription of any physician or surgeon.

SEC. 108. *And be it further enacted*, That every manufacturer or maker of any of the articles for sale mentioned in schedule C, after the same shall have been so made, and the particulars hereinbefore required as to stamps have been complied with, who shall take off, remove, or detach, or cause or permit, or suffer to be taken off, or removed or detached, any stamp, or who shall use any stamp, or any wrapper or cover to which any stamp is affixed, to cover any other article or commodity than that originally contained in such wrapper or cover, with such stamp when first used, with the intent to evade the stamp duties, shall for every such article, respectively, in respect of which any such offence shall be committed, be subject to a penalty of fifty dollars, to be recovered together with the costs thereupon accruing, and every such article or commodity, as aforesaid, shall also be forfeited.

SEC. 109. *And be it further enacted*, That every maker or manufacturer of any of the articles or commodities mentioned in schedule C, as aforesaid, who shall sell, send out, remove, or deliver any article or commodity, manufactured as aforesaid, before the duty thereon shall have been fully paid, by affixing thereon the proper stamp, as in this act provided, or who shall hide or conceal, or cause to be hidden or concealed, or who shall remove or convey away, or deposit, or cause to be removed or conveyed away from or deposited in any place, any such article or commodity, to evade the duty chargeable thereon, or any part thereof, shall be subject to a penalty of one hundred dollars, together with the forfeiture of any such article or commodity: *Provided*, That medicines, preparations, compositions, perfumery, and cosmetics, upon which stamp duties are required by this act, may, when intended for exportation, be manufactured and sold, or removed without having stamps affixed thereto, and without being charged with duty, as aforesaid; and every manufacturer or maker of any article, as aforesaid, intended for exportation, shall give such bonds and be subject to such rules and regulations to protect the revenue against fraud as may be from time to time prescribed by the Secretary of the Treasury.

SEC. 110. *And be it further enacted*, That every manufacturer or maker of any of the articles or commodities, as aforesaid, or his chief workman, agent, or superintendent, shall at the end of each and every month make and sign a declaration in writing that no such article or commodity, as aforesaid, has, during such preceding month, or time when the

last declaration was made, been removed, carried, or sent, or caused, or suffered, or known to have been removed, carried, or sent from the premises of such manufacturer or maker, other than such as have been duly taken account of and charged with the stamp duty, on pain of such manufacturer or maker forfeiting for every refusal or neglect to make such declaration one hundred dollars; and if any such manufacturer or maker, or his chief workman, agent, or superintendent, shall make any false or untrue declaration, such manufacturer or maker, or chief workman, agent, or superintendent, making the same, shall forfeit five hundred dollars.

SCHEDULE B.

STAMP DUTIES.

	Duty. Dolla. cts.
AGREEMENT OR CONTRACT, other than those specified in this schedule; any appraisalment of value or damage, or for any other purpose; for every sheet or piece of paper upon which either of the same shall be written, five cents.....	5
Bank check, draft, or order for the payment of any sum of money exceeding twenty dollars, drawn upon any bank, trust company, or any person or persons, companies, or corporations at sight or on demand, two cents.....	2
Bill of exchange, (inland) draft, or order for the payment of any sum of money exceeding twenty and not exceeding one hundred dollars, otherwise than at sight or on demand, or any promissory note except bank notes issued for circulation, for a sum exceeding twenty and not exceeding one hundred dollars, five cents.....	5
Exceeding one hundred dollars and not exceeding two hundred dollars, ten cents.....	10
Exceeding two hundred dollars and not exceeding three hundred and fifty dollars, fifteen cents.....	15
Exceeding three hundred and fifty dollars and not exceeding five hundred dollars, twenty cents.....	20
Exceeding five hundred dollars and not exceeding seven hundred and fifty dollars, thirty cents.....	30
Exceeding seven hundred and fifty dollars and not exceeding one thousand dollars, forty cents.....	40
Exceeding one thousand dollars and not exceeding fifteen hundred dollars, sixty cents.....	60
Exceeding fifteen hundred dollars and not exceeding twenty-five hundred dollars, one dollar.....	1 00
Exceeding twenty-five hundred dollars and not exceeding five thousand dollars, one dollar and fifty cents.....	1 50
And for every twenty-five hundred dollars, or part of twenty-five hundred dollars in excess of five thousand dollars, one dollar.....	1 00
Bill of exchange (foreign) or letter of credit, drawn in but payable out of the United States, if drawn singly, or otherwise than in a set of three or more, according to the custom of merchants and bankers, shall pay the same rates of duty as inland bills of exchange or promissory notes.	

	Duty. Dolla. cts.
If drawn in sets of three or more: For every bill of each set, where the sum made payable shall not exceed one hundred and fifty dollars, or the equivalent thereof, in any foreign currency in which such bills may be expressed, according to the standard of value fixed by the United States, three cents...	3
Above one hundred and fifty dollars and not above two hundred and fifty dollars, five cents.....	5
Above two hundred and fifty dollars and not above five hundred dollars, ten cents.....	10
Above five hundred dollars and not above a thousand dollars, fifteen cents.....	15
Above one thousand dollars and not above one thousand five hundred dollars, twenty cents.....	20
Above one thousand five hundred dollars and not above two thousand two hundred and fifty dollars, thirty cents.....	30
Above two thousand two hundred and fifty dollars and not above three thousand five hundred dollars, fifty cents.....	50
Above three thousand five hundred dollars and not above five thousand dollars, seventy cents.....	70
Above five thousand dollars and not above seven thousand five hundred dollars, one dollar.....	1 00
And for every two thousand five hundred dollars, or part thereof, in excess of seven thousand five hundred dollars, thirty cents	30
BILL of LADING or receipt, (other than charter-party,) for any goods, merchandise, or effects, to be exported from a port or place in the United States to any foreign port or place, ten cents.....	10
EXPRESS.—For every receipt or stamp issued, or issued by any express company, or carrier, or person whose occupation it is to act as such, for all boxes, bales, packages, articles, or bundles, for the transportation of which such company, carrier, or person, shall receive a compensation of not over twenty-five cents, one cent.....	1
When such compensation exceeds the sum of twenty-five cents, and not over one dollar, two cents.....	2
When one or more packages are sent to the same address at the same time, and the compensation therefor exceeds one dollar, five cents.....	5
BOND.—For indemnifying any person who shall have become bound or engaged as surety for the payment of any sum of money, or for the due execution or performance of the duties of any office, and to account for money received by virtue thereof, fifty cents.....	50
BOND of any description other than such as may be required in legal proceedings, and such as are not otherwise charged in this schedule, twenty-five cents.....	25
CERTIFICATE of stock in any incorporated company, twenty-five cents.....	25
CERTIFICATE of profits, or any certificate or memorandum showing an interest in the property or accumulations of any incorporated company, if for a sum not less than ten dollars and not	

	Duty. Dolla. cts.
exceeding fifty dollars, ten cents.	10
For a sum exceeding fifty dollars, twenty-five cents.	25
CERTIFICATE.—Any certificate of damage, or otherwise, and all other certificates or documents issued by any port warden, marine surveyor, or other person acting as such, twenty-five cents.	25
CERTIFICATE of deposit of any sum of money in any bank or trust company, or with any banker or person acting as such—	
If for a sum not exceeding one hundred dollars, two cents.	2
For a sum exceeding one hundred dollars, five cents.	5
CERTIFICATE of any other description than those specified, ten cents.	10
CHARTER-PARTY.—Contract or agreement for the charter of any ship or vessel, or steamer, or any letter, memorandum, or other writing between the captain, master, or owner, or person acting as agent of any ship or vessel, or steamer, and any other person or persons for or relating to the charter of such ship or vessel, or steamer, if the registered tonnage of such ship or vessel, or steamer does not exceed three hundred tons, three dollars.	3 00
Exceeding three hundred tons, and not exceeding six hundred tons, five dollars.	5 00
Exceeding six hundred tons, ten dollars.	10 00
CONTRACT.—Broker's note, or memorandum of sale of any goods or merchandise, stocks, bonds, exchange, notes of hand, real estate, or property of any kind or description issued by brokers or persons acting as such, ten cents.	10
CONVEYANCE.—Deed, instrument, or writing, whereby any lands, tenements, or other realty sold shall be granted, assigned, transferred, or otherwise conveyed to, or vested in, the purchaser or purchasers, or any other person or persons by his, her, or their direction, when the consideration or value exceeds one hundred dollars and does not exceed five hundred dollars, fifty cents.	50
When the consideration exceeds five hundred dollars and does not exceed one thousand dollars, one dollar.	1 00
Exceeding one thousand dollars and not exceeding two thousand five hundred dollars, two dollars.	2 00
Exceeding two thousand five hundred dollars and not exceeding five thousand dollars, five dollars.	5 00
Exceeding five thousand dollars and not exceeding ten thousand dollars, ten dollars.	10 00
Exceeding ten thousand dollars and not exceeding twenty thousand dollars, twenty dollars.	20 00
And for every additional ten thousand dollars, or fractional part thereof, in excess of twenty thousand dollars, twenty dollars.	20 00
DESPATCH, TELEGRAPHIC.—Any despatch or message, the charge for which for the first ten words does not exceed twenty cents, one cent.	1
When the charge for the first ten words exceeds twenty cents, three cents.	3

	Duty. Dolla. cts.
ENTRY of any goods, wares, or merchandise at any custom-house, either for consumption or warehousing, not exceeding one hundred dollars in value, twenty-five cents.	25
Exceeding one hundred dollars and not exceeding five hundred dollars in value, fifty cents.	50
Exceeding five hundred dollars in value, one dollar.	1 00
ENTRY for the withdrawal of any goods or merchandise from bonded warehouse, fifty cents.	50
INSURANCE, (LIFE).—Policy of insurance, or other instrument by whatever name the same shall be called, whereby any insurance shall be made upon any life or lives—	
When the amount insured shall not exceed one thousand dollars, twenty-five cents.	25
Exceeding one thousand and not exceeding five thousand dollars, fifty cents.	50
Exceeding five thousand dollars, one dollar.	1 00
INSURANCE, (MARINE, INLAND, AND FIRE).—Each policy of insurance or other instrument, by whatever name the same shall be called, by which insurance shall be made or renewed upon property of any description, whether against perils by the sea or by fire, or other peril of any kind, made by any insurance company, or its agents, or by any other company or person, twenty-five cents.	25
LEASE, agreement, memorandum, or contract for the hire, use, or rent of any land, tenement, or portion thereof—	
If for a period of time not exceeding three years, fifty cents.	50
If for a period exceeding three years, one dollar.	1 00
MANIFEST for custom-house entry or clearance of the cargo of any ship, vessel, or steamer for a foreign port—	
If the registered tonnage of such ship, vessel, or steamer does not exceed three hundred tons, one dollar.	1 00
Exceeding three hundred tons, and not exceeding six hundred tons, three dollars.	3 00
Exceeding six hundred tons, five dollars.	5 00
MORTGAGE of lands, estate or property, real or personal, heritable or movable whatsoever, where the same shall be made as a security for the payment of any definite and certain sum of money lent at the time or previously due and owing or forborne to be paid, being payable; also any conveyance of any lands estate or property whatsoever, in trust to be sold or otherwise converted into money, which shall be intended only as security, and shall be redeemable before the sale or other disposal thereof, either by express stipulation or otherwise; or any personal bond given as security for the payment of any definite or certain sum of money exceeding one hundred dollars, and not exceeding five hundred dollars, fifty cents.	50
Exceeding five hundred dollars, and not exceeding one thousand dollars, one dollar.	1 00
Exceeding one thousand dollars, and not exceeding two thousand five hundred dollars, two dollars.	2 00
Exceeding two thousand five hundred dollars, and not exceeding	

	Duty. Dolla. cts.
five thousand dollars, five dollars.	5 00
Exceeding five thousand dollars, and not exceeding ten thousand dollars, ten dollars.	10 00
Exceeding ten thousand dollars, and not exceeding twenty thousand dollars, fifteen dollars.	15 00
And for every additional ten thousand dollars, or fractional part thereof, in excess of twenty thousand dollars, ten dollars.	10 00
PASSAGE TICKET, by any vessel from a port in the United States to a foreign port, if less than thirty dollars, fifty cents.	50
Exceeding thirty dollars, one dollar.	1 00
POWER OF ATTORNEY for the sale or transfer of any stock, bonds, or scrip, or for the collection of any dividends or interest thereon, twenty-five cents.	25
POWER OF ATTORNEY OR PROXY for voting at any election for officers of any incorporated company or society, except religious, charitable, or literary societies, or public cemeteries, ten cents	10
POWER OF ATTORNEY to receive or collect rent, twenty-five cents.	25
POWER OF ATTORNEY to sell and convey real estate, or to rent or lease the same, or to perform any and all other acts not hereinbefore specified, one dollar.	1 00
PROBATE OF WILL, or letters of administration: Where the estate and effects for or in respect of which such probate or letters of administration applied for shall be sworn or declared not to exceed the value of two thousand five hundred dollars, fifty cents.	50
To exceed two thousand five hundred dollars, and not exceeding five thousand dollars, one dollar.	1 00
To exceed five thousand dollars, and not exceeding twenty thousand dollars, two dollars.	2 00
To exceed twenty thousand dollars, and not exceeding fifty thousand dollars, five dollars.	5 00
To exceed fifty thousand dollars, and not exceeding one hundred thousand dollars, ten dollars.	10 00
Exceeding one hundred thousand dollars, and not exceeding one hundred and fifty thousand dollars, twenty dollars.	20 00
And for every additional fifty thousand dollars, or fractional part thereof, ten dollars.	10 00
PROTEST.—Upon the protest of every note, bill of exchange, acceptance, check or draft, or any marine protest, whether protested by a notary public or by any other officer who may be authorized by the law of any State or States to make such protest, twenty-five cents.	25
WAREHOUSE RECEIPT for any goods, merchandise, or property of any kind held on storage in any public or private warehouse or yard, twenty-five cents.	25
LEGAL DOCUMENTS:	
Writ, or other original process by which any suit is commenced in any court of record, either law or equity, fifty cents.	50
<i>Provided</i> , That no writ, summons, or other process issued by a justice of the peace, or issued in any criminal or other suits commenced by the United States or any State, shall be subject to	

Duty.
Dolls. cts.

the payment of stamp duties: *And provided, further,* That the stamp duties imposed by the foregoing schedule B on manifests, bills of lading and passage tickets, shall not apply to steamboats or other vessels plying between ports of the United States and ports in British North America.

SCHEDULE C.

- MEDICINES OR PREPARATIONS.**—For and upon every packet, box, bottle, pot, phial, or other enclosure, containing any pills, powders, tinctures, troches or lozenges, syrups, cordials, bit-
ters, anodynes, tonics, plasters, liniments, salves, ointments,
pastes, drops, waters, essences, spirits, oils, or other prepara-
tions or compositions whatsoever, made and sold, or removed
for consumption and sale, by any person or persons whatever,
wherein the person making or preparing the same has, or
claims to have, any private formula or occult secret or art for
making or preparing the same, or has or claims to have, any
exclusive right or title to the making or preparing the same,
or which are prepared, uttered, vended, or exposed for sale
under any letters patent, or held out or recommended to the
public by the makers, venders, or proprietors thereof as pro-
prietary medicines, or as remedies or specifics for any disease,
diseases, or affections whatever affecting the human or animal
body, as follows: where such packet, box, bottle, pot, phial, or
other enclosure, with its contents, shall not exceed, at the re-
tail price or value, the sum of twenty-five cents, one cent. 1
- Where such packet, box, bottle, pot, phial, or other enclosure, with
its contents, shall exceed the retail price or value of twenty-
five cents, and not exceed the retail price or value of fifty
cents, two cents. 2
- Where such packet, box, bottle, pot, phial, or other enclosure, with
its contents, shall exceed the retail price or value of fifty
cents, and shall not exceed the retail price or value of seventy-
five cents, three cents. 3
- When such packet, box, bottle, pot, phial, or other enclosure, with
its contents, shall exceed the retail price or value of seventy-
five cents, and shall not exceed the retail price or value of
one dollar, four cents. 4
- When such packet, box, bottle, pot, phial, or other enclosure, with
its contents, shall exceed the retail price or value of one dol-
lar, for each and every fifty cents or fractional part thereof
over and above the one dollar, as before mentioned, an addi-
tional two cents. 2
- PERFUMERY AND COSMETICS.**—For and upon every packet, box, bot-
tle, pot, phial, or other enclosure, containing any essence, ex-
tract, toilet, water, cosmetic, hair oil, pomade, hairdressing,
hair restorative, hair dye, toothwash, dentifrice, tooth paste,
aromatic cachous, or any similar articles, by whatsoever name
the same heretofore have been, now are, or may hereafter be
called, known, or distinguished, used or applied, or to be used
or applied as perfumes or applications to the hair, mouth, or

Duty.
Dolla. cts.

skin, made, prepared, and sold or removed for consumption and sale in the United States, where such packet, box, bottle, pot, phial, or other enclosure, with its contents, shall not exceed at the retail price or value the sum of twenty-five cents, one cent.	1
Where such packet, box, bottle, pot, phial, or other enclosure, with its contents, shall exceed the retail price or value of twenty-five cents, and shall not exceed the retail price or value of fifty cents, two cents.	2
Where such packet, box, bottle, pot, phial, or other enclosure, with its contents, shall exceed the retail price or value of fifty cents, and shall not exceed the retail price or value of seventy-five cents, three cents.	3
Where such packet, box, bottle, pot, phial, or other enclosure, with its contents, shall exceed the retail price or value of seventy-five cents, and shall not exceed the retail price or value of one dollar, four cents.	4
Where such packet, box, bottle, pot, phial, or other enclosure, with its contents, shall exceed the retail price or value of one dollar, for each and every fifty cents or fractional part thereof over and above the one dollar, as before mentioned, an additional two cents.	2
PLAYING CARDS.—For and upon every pack of whatever number, when the price per pack does not exceed eighteen cents, one cent.	1
Over eighteen cents and not exceeding twenty-five cents per pack, two cents.	2
Over twenty-five and not exceeding thirty cents per pack, three cents	3
Over thirty and not exceeding thirty-six cents per pack, four cents	4
Over thirty-six cents per pack, five cents.	5

LEGACIES AND DISTRIBUTIVE SHARES OF PERSONAL PROPERTY.

SEC. 111. *And be it further enacted*, That any person or persons having in charge or trust, as administrators, executors, or trustees of any legacies or distributive shares arising from personal property, of any kind whatsoever, where the whole amount of such personal property, as aforesaid, shall exceed the sum of one thousand dollars in actual value, passing from any person who may die after the passage of this act possessed of such property, either by will or by the intestate laws of any State or Territory, or any part of such property or interest therein, transferred by deed, grant, bargain, sale, or gift, made or intended to take effect in possession or enjoyment after death of the grantor or bargainor, to any person or persons, or to any body or bodies politic or corporate, in trust or otherwise, shall be, and hereby are, made subject to a duty or tax, to be paid to the United States, as follows, that is to say :

First, Where the person or persons entitled to any beneficial interest in such property shall be the lineal issue or lineal ancestor, brother or sister, to the person who died possessed of such property, as aforesaid, at and after the rate of seventy-five cents for each and every hundred dollars of the clear value of such interest in such property.

Second, Where the person or persons entitled to any beneficial interest in such property shall be a descendant of a brother or sister of the person who died possessed, as aforesaid, at and after the rate of one dollar and fifty cents for each and every hundred dollars of the clear value of such interest.

Third, Where the person or persons entitled to any beneficial interest in such property shall be a brother or sister of the father or mother, or a descendant of a brother or sister of the father or mother of the person who died possessed, as aforesaid, at and after the rate of three dollars for each and every hundred dollars of the clear value of such interest.

Fourth, Where the person or persons entitled to any beneficial interest in such property shall be a brother or sister of the grandfather or grandmother, or a descendant of the brother or sister of the grandfather or grandmother of the person who died possessed, as aforesaid, at and after the rate of four dollars for each and every hundred dollars of the clear value of such interest.

Fifth, Where the person or persons entitled to any beneficial interest in such property shall be in any other degree of collateral consanguinity than is hereinbefore stated, or shall be a stranger in blood to the person who died possessed, as aforesaid, or shall be a body politic or corporate, at and after the rate of five dollars for each and every hundred dollars of the clear value of such interest: *Provided*, That all legacies or property passing by will, or by the laws of any State or Territory, to husband or wife of the person who died possessed, as aforesaid, shall be exempt from tax or duty.

SEC. 112. *And be it further enacted*, That the tax or duty aforesaid shall be a lien and charge upon the property of every person who may die as aforesaid, until the same shall be fully paid to and discharged by the United States; and every executor, administrator, or other person who may take the burden or trust of administration upon such property shall, after taking such burthen or trust, and before paying and distributing any portion thereof to the legatees or any parties entitled to beneficial interest therein, pay to the collector or deputy collector of the district the amount of the duty or tax, as aforesaid, and shall also make and render to the assistant assessor of the district a schedule, list, or statement of the amount of such property, together with the amount of duty which has accrued or should accrue thereon, verified by his oath or affirmation, to be administered and certified thereon by some magistrate or officer having lawful power to administer such oaths, in such form and manner as may be prescribed by the Commissioner of Internal Revenue, which schedule, list, or statement shall contain the names of each and every person entitled to any beneficial interest therein, together with the clear value of such interest, which schedule, list, or statement shall be by him delivered to such collector; and upon such payment and delivery of such schedule, list, or statement, said collector or deputy collector shall grant to such person paying such duty or tax a receipt or receipts for the same in duplicate, which shall be prepared as is hereinafter provided; such receipt or receipts, duly signed and delivered by such collector or deputy collector, shall be sufficient evidence to entitle the person who paid such duty or tax as having taken the burden or trust of administering such property or personal estate to be allowed for such payment by the person or persons entitled to the beneficial interest in respect to

which such tax or duty was paid; and such person administering such property or personal estate shall be credited and allowed such payment by every tribunal which, by the laws of any State or Territory, is or may be empowered to decide upon and settle the accounts of executors and administrators: and in case such person who has taken the burden or trust of administering upon any such property or personal estate shall refuse or neglect to pay the aforesaid duty or tax to the collector or deputy collector, as aforesaid, within the time hereinbefore provided, or shall neglect or refuse to deliver to said collector or deputy collector the schedule, list, or statement of such legacies, property or personal estate under oath, as aforesaid, or shall deliver to said collector or deputy collector a false schedule or statement of such legacies, property, or personal estate, or give the names and relationship of the persons entitled to beneficial interest therein untruly, or shall not truly and correctly set forth and state therein the clear value of such beneficial interest, or where no administration upon such property or personal estate shall have been granted or allowed under existing laws, the proper officer of the United States shall commence such proceedings in law or equity before any court of the United States as may be proper and necessary to enforce and realize the lien or charge upon such property or personal estate, or any part thereof, for which such tax or duty has not been truly and justly paid. Under such proceedings the rate of duty or tax enforced shall be the highest rate imposed or assessed by this act, and shall be in the name of the United States against such person or persons as may have the actual or constructive custody or possession of such property or personal estate, or any part thereof, and shall subject such property or personal estate, or any portion of the same, to be sold upon the judgment or decree of such court, and from the proceeds of such sale, the amount of such tax or duty, together with all costs and expenses of every description to be allowed by such court, shall be first paid, and the balance, if any, deposited according to the order of such court, to be paid under its direction to such person or persons as shall establish their lawful title to the same. The deed or deeds, or any proper conveyance of such property or personal estate, or any portion thereof so sold under such judgment or decree, executed by the officer lawfully charged with carrying the same into effect, shall vest in the purchaser thereof all the title of the delinquent to the property or personal estate sold under and by virtue of such judgment or decree, and shall release every other portion of such property or personal estate from the lien or charge thereon created by this act. And every person or persons who shall have in his possession, charge, or custody, any record, file, or paper, containing or supposed to contain any information concerning such property or personal estate, as aforesaid, passing from any person who may die, as aforesaid, shall exhibit the same at the request of the collector of the revenue, his deputy, or agent, and to any law officer of the United States, in the performance of his duty under this act, his deputy or agent, who may desire to examine the same; and if any such person, having in his possession, charge, or custody, any such records, files, or papers, shall refuse or neglect to exhibit the same on request, as aforesaid, he shall forfeit and pay the sum of five hundred dollars; and in case of any delinquency in making the schedule, list, or statement, or in the payment of the duty or tax accruing, or which should accrue thereon, the assessment and collection shall be made as provided for in the general provisions of this act: *Provided*, In all legal controversies where such deed

or title shall be the subject of judicial investigation the recital in said deed shall be presumed to be true, and that the requirements of the law had been complied with by the officers of the government.

Sec. 113. *And be it further enacted*, That whenever by this act any license, duty, or tax of any description has been imposed on any corporate body, or property of any incorporated company, it shall be lawful for the Commissioner of Internal Revenue to prescribe and determine in what district such tax shall be assessed and collected, and to what officer thereof the official notices required in that behalf shall be given, and of whom payment of such tax shall be demanded.

Sec. 114. *And be it further enacted*, That all articles upon which duties are imposed by the provisions of this act, which shall be found in the possession of any person or persons for the purpose of being sold by such person or persons in fraud thereof, and with the design to avoid payment of said duties, may be seized by any collector or deputy collector who shall have reason to believe that the same are possessed for the purpose aforesaid, and the same shall be forfeited to the United States. And the proceedings to enforce said forfeiture shall be in the nature of a proceeding in rem in the circuit or district court of the United States for the district where such seizure is made, or in any other court of competent jurisdiction. And any person who shall have in his possession any such articles for the purpose of selling the same, with the design of avoiding payment of the duties imposed thereon by this act, shall be liable to a penalty of one hundred dollars, to be recovered as hereinbefore provided.

APPROPRIATION.

Sec. 115. *And be it further enacted*, That the pay of the assessors, assistant assessors, collectors, and deputy collectors, shall be paid out of the accruing internal duties or taxes before the same is paid into the treasury, according to such regulations as the Commissioner of Internal Revenue, under the direction of the Secretary of the Treasury, shall prescribe; and for the purpose of paying the Commissioner of Internal Revenue and clerks, procuring dies, stamps, adhesive stamps, paper, printing forms and regulations, advertising, and any other expenses of carrying this act into effect, the sum of five hundred thousand dollars be, and hereby is, appropriated, or so much thereof as may be necessary.

ALLOWANCE AND DRAWBACK.

Sec. 116. *And be it further enacted*, That from and after the date on which this act takes effect, there shall be an allowance or drawback on all articles on which any internal duty or tax shall have been paid, except raw or unmanufactured cotton, equal in amount to the duty or tax paid thereon, and no more, when exported, the evidence that any such duty or tax has been paid to be furnished to the satisfaction of the Commissioner of Internal Revenue by such person or persons as shall claim the allowance or drawback, and the amount to be ascertained under such regulations as shall, from time to time, be prescribed by the Commissioner of Internal Revenue, under the direction of the Secretary of the Treasury, and the same shall be paid by the warrant of the Secretary of the Treasury on the Treasurer of the United States, out of any money arising from internal duties not otherwise appropriated: *Provided*, That no allowance or drawback shall be made or had for any amount claimed

or due less than twenty dollars, anything in this act to the contrary notwithstanding: *And provided, further*, That any certificate of drawback for goods exported, issued in pursuance of the provisions of this act, may, under such regulations as may be prescribed by the Secretary of the Treasury, be received by the collector or his deputy in payment of duties under this act. And the Secretary of the Treasury may make such regulations with regard to the form of said certificates and the issuing thereof as, in his judgment, may be necessary: *And provided, further*, That in computing the allowance or drawback upon articles manufactured exclusively of cotton when exported, there shall be allowed, in addition to the three per centum duty which shall have been paid on such articles, a drawback of five mills per pound upon such articles, in all cases where the duty imposed by this act upon the cotton used in the manufacture thereof has been previously paid; the amount of said allowance to be ascertained in such manner as may be prescribed by the Commissioner of Internal Revenue, under the direction of the Secretary of the Treasury.

SEC. 117. *And be it further enacted*, That if any person or persons shall fraudulently claim or seek to obtain an allowance or drawback on goods, wares, or merchandise, on which no internal duty shall have been paid, or shall fraudulently claim any greater allowance or drawback than the duty actually paid, as aforesaid, such person or persons shall forfeit triple the amount wrongfully or fraudulently claimed or sought to be obtained, or the sum of five hundred dollars, at the election of the Secretary of the Treasury, to be recovered as in other cases of forfeiture provided for in the general provisions of this act.

SEC. 118. *And be it further enacted*, That the sum of sixty thousand dollars appropriated to complete the capitol in New Mexico, by the second section of an act of Congress, approved June twenty-five, eighteen hundred and sixty, and the sum of fifty thousand dollars, appropriated for military roads in New Mexico, by act of Congress, approved March two, eighteen hundred and sixty-one, be, and the same are hereby, credited to the Territory of New Mexico in payment of the direct annual tax of sixty-two thousand six hundred and forty-eight dollars levied upon said Territory under the eighth section of an act of Congress, approved August five, eighteen hundred and sixty-one, to be taken up on account of said direct tax under said [act] as the same may fall due to the United States from said Territory.

SEC. 119. *And be it further enacted*, That so much of an act entitled "An act to provide increased revenue from imports to pay interest on the public debt, and for other purposes," approved August fifth, eighteen hundred and sixty-one, as imposes a direct tax of twenty millions of dollars on the United States, shall be held to authorize the levy and collection of one tax to that amount; and no other tax shall be levied under and by virtue thereof, until the first day of April, eighteen hundred and sixty-five, when the same shall be in full force and effect.

GALUSHA A. GROW,

Speaker of the House of Representatives.

SOLOMON FOOT,

President of the Senate protempore.

Approved July 1, 1862.

ABRAHAM LINCOLN.

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NOTE.—For modifications of so much of the act of August 5, 1861, as relates to the tariff, see the tariff act of 1862.

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DISTILLATION OF PETROLEUM.

SPECIFICATIONS OF THE PATENT GRANTED TO CHARLES BLOCHFORD MANSFIELD, OF CLARE HALL, IN THE UNIVERSITY OF CAMBRIDGE, FOR AN IMPROVEMENT IN THE MANUFACTURE AND PURIFICATION OF SPIRITUOUS SUBSTANCES, AND OILS APPLICABLE TO THE PURPOSES OF ARTIFICIAL LIGHT AND VARIOUS USEFUL ARTS.

[Continued from page 147.]

I now proceed to state how these substances may be obtained, first remarking that I shall describe other properties of some of these spirituous substances and oils, when treating of the preparation of each.

And first I will describe the manufacture of Alliole.

This spirituous substance may be separated either from coal, or from coal-tar, or from the most volatile part of the oil distilled from coal-tar. I obtain this spirituous substance by reserving the first portion of oil which passes over on distilling the tar, or the most volatile oil distilled from the tar in the ordinary manner; and it is convenient to separate the first portion equal to one-eighth of the light oil or naphtha, which is expected from the retort; but the smaller the quantity set aside at first, the purer, more volatile will the spirituous substance be. It is convenient sometimes to continue to receive the distillate, so long as a sample taken from it will yield a flame entirely white on igniting a current of air passed through it, as above described, in respect to what I have called a *test bottle*; and this applies equally to the rectification by steam, or by simple distillation with or without water. By repeating this process with the portion set aside at first, and again reserving the first portion, a more volatile spirit may be obtained, and this will be more volatile the oftener the process is repeated. The residue which remains each time may be added to the common naphtha; and in so treating the oil or naphtha, I prefer to distil the oil or naphtha in a retort by heat applied without admitting steam or water into the oil or naphtha, and to use a thermometer inserted in the retort, or so connected with it as to indicate the temperature within the retort. And I prefer to set aside separately those portions that distil over while the temperature of the naphtha is rising through successive intervals of temperature; by this means I separate the naphtha into several oils and spirituous substances differing in respect to their boiling temperatures; and by repeating this process several times on the first products, I obtain a considerable quantity of a very volatile spirituous substance, whose boiling temperature is between 60° and 80°, which does not solidify by the application of cold about 20° (that is 20° below zero.) This process may be considered tedious, but it yields a very volatile spirituous substance as a result, and a similar process is applicable to obtaining in a more or less pure state the other spirituous substances and oils before mentioned. Or I apply to the coal-tar or crude naphtha any of the usual processes which are well known, and which are applied to the distillation and rectification of spirit of wines, the residue, in the case of spirit of wine, being a watery fluid, and in this case tar or oil.

As what relates to rectification applies equally to benzule as to the alliole in coal-naphtha, and the benzule is the more important and more abundant product, I shall now pass on to the methods of obtaining benzule, observing that the same methods apply to alliole, except that when alliole is required separately, the first and most volatile portions, viz., such as distil over below, or only a little above 80° , must be reserved alone, while for benzule the temperature is allowed to rise higher before charging the receiver.

The same methods apply to obtaining the volatile spirituous substances from other tarry and bituminous and hydro-carbonaceous matters, such as wood-tar, petroleum, mineral naphtha, oils distilled from bituminous schist, from caoutchouc, and other such matters; and it may always be ascertained by a single experiment, with a small retort and thermometer, as above mentioned, whether any sample of such matters contains sufficient of spirituous substances to render it worth distilling, it being observed whether a large or small fraction of the substance distils over at a temperature below 100° , except that when the application is made to substances other than coal-tar or coal-naphtha, what is said of alliole and benzule must be considered to apply to spirituous substances of nearly similar volatility, but not necessarily corresponding in other properties to alliole and benzule.

The more perfect the system of rectification, the more free will the spirituous substance be from oils having less volatility; and for the preparation of benzule such mode or modes of rectification are preferable as will allow as much as possible of a very volatile spirit which boils when pure at about 80° to pass over in vapor, and will keep back the vapors of the less volatile oils. The process of rectification which I recommend, is one in which the tar, crude-light oil, or crude-naphtha (but I prefer to use the crude-naphtha or light oil of tar) is placed in a retort, which is heated either by the direct application of fire, or by steam carried through it either in closed pipes, or by a pipe opening into the bottom of the retort; the vapors from the retort are conducted through a head in which a partial condensation of the less volatile vapors takes place, so that these are returned in the liquid state, either to the retort or to a separate receiver, and the most volatile vapors are allowed to pass on to a condenser, which is kept as cold as possible, and are then received separately. And I recommend that the first condenser or head consists of a room or chamber, with a lower opening, by which all condensed oil may flow back freely into the retort or other vessel, with an upper opening or pipe to conduct the uncondensed vapors to the next condenser; and I recommend that, in the first distillation, this upper condenser should be surrounded with water, which should not be changed, but be allowed to rise in temperature as the distillation proceeds till it boils; or there may be two or more such vessels, in each of which a partial condensation may take place so as to rectify the spirituous matters by one distillation, each being connected, if required, with a separate special receiver for the less volatile part therein condensed; and the apparatus may be so arranged that the vapors from the retort or preceding condenser, either may or may not pass through the fluid in each succeeding receiver; and in case more than one such partial condenser is used, I recommend that the temperature of that nearest the retort be allowed to rise till the water surrounding it boils, and the temperature of the last, or that farthest from the retort, be kept at or below 50° or 60° , if alliole be required, or 80° or 85° , if benzule be required; or that the temperature in

the last partial condenser be kept below 60° , till vapors have ceased to escape from it to the final condenser, which will be known by the cessation of distillation at the final receiver; and then the fluid in the final receiver being set aside as alliole, the temperature in the last partial condenser may be allowed to rise again till it reaches 80° or 85° , and the distillate received as benzule so long as it continues to run. I recommend that the size of the head or partial condenser, if only one be used, be of or about the same proportion to the size of the retort, as the condensing apparatus of an ordinary still bears to the still itself, but the water surrounding the head may be in a much smaller quantity than is necessary in such part of an ordinary still; if more than one partial condenser be used, they may be proportionably smaller. And when I use the term "head," I would have it understood that I use it for brevity to express a partial condenser placed over a retort, in which an inner condensing chamber is surrounded with water, or sometimes with oil contained in an outer vessel.

If this proportion be observed, it will usually be found that the distillation will proceed regularly while the temperature of the water in the head gradually rises, and that distillation will cease when the water in the head begins to boil. Distillation may then be continued either by drawing off the water from the head, or by opening another neck attached to the retort, through which the remaining naphtha may come over, which will not differ much from ordinary naphtha in any of its usually recognized properties. I then repeat this process any number of times, according to the degree of purity and volatility of the spirituous substance required; or, as before stated, by means of successive partial condensers I obtain the requisite purity by one operation, and I regulate the temperature of the water surrounding the head by the volatility of the spirit required. The cooler the head be kept the more volatile and the less in quantity will be the spirit obtained. And I have two methods of ascertaining the volatility of the spirit which is distilled over at any time; first, by a thermometer which is either inserted in the retort, through its side or cover, through a cork or stuffing-box, or is kept loosely in a closed tube which projects from the side of the retort into the interior, which tube should be kept corked, to prevent access of cold air to the thermometer, (and in this case the thermometer will usually show a temperature two or three degrees lower than the true heat of boiling fluid,) or the bulb of the thermometer is placed in a small chamber connected with the upper part of the retort by a short neck, in which is a cork, by turning which vapor may be allowed access to the thermometer, or the thermometer may be attached, if successive partial condensers and receivers be used, in the same manner to the last partial receiver, through which the vapor passes before entering the last head or partial condenser. And here I may remark, that the more nearly the temperature of the retort on the second or any subsequent rectification, or if the successive rectifications be conducted by one operation, the temperature of the last chamber or receiver through which the vapor passes before passing through the last partial condenser, approximates to 80° , while the contents of the retort are in active ebullition, the more nearly will the fluid distilling at the same time approach to the nature of benzule, and the more easily will such spirit be purified by refrigeration, according to the method to be hereafter described. And I recommend that when benzule be required for purification by freezing, such temperature be not allowed to pass 90° before the receiver is changed. And as the temperature rises in the retort the distillate will be less and less

volatile. And the other method in which I ascertain the volatility of the spirit is by the flame yielded by the test bottle, with a current of air, as before described. If a portion of the first, and therefore most volatile, distilled from the naphtha be placed in such a bottle, and common air be blown through the tube which reaches below the level of the fluid, as may be done conveniently from the mouth, and if a lighted match be at the same time applied to the mouth of the other tube, the air escaping will have taken up so much of the vapor of the spirit, that it will burn with a white flame. If samples be taken as they come from the still at intervals, and placed in such a test-bottle, it will be observed that the air will still burn with a white flame; after many such samples have been tried, as the temperature in the retort rises, however, it will be observed that the test-bottle shows a diminution of the whiteness in the flame, which becomes more and more blue from below upwards, till only the tip of the flame will be white; next the whiteness will disappear, and the flame will become entirely blue. And if the distillation be conducted in a still which permits the whole of the naphtha to pass over, it will be observed that when the operation has been continued to a certain point, the test-bottle will no longer yield any flame. I find it convenient sometimes to regulate the change of the receiver by the observation of the flame, according to the volatility of the fluid required. It will be found that all that comes over on the second rectification of the spirituous matter below 90° will yield a good white flame; and about 100° about one-half or more of the flame will be white. And here I will further state the properties of the distillates obtained as the temperature advances, which it is the object of my invention to separate from each other and to purify. The first portion of the distillate will generally be an extremely volatile spirituous substance, which, when purified, is of a peculiar alliaceous smell, somewhat resembling that of bi-sulphuret of carbon; it boils when pure at about 65° or 70° , and is changed by mixture with concentrated sulphuric acid, which forms a compound with it. It does not solidify at 20° below zero. It will usually be obtained mixed with a certain quantity of the spirituous substance which next follows in the scale of boiling points. To obtain it moderately free from which, it is convenient to receive for alliole all that comes over before the boiling temperature in the retort is 90° on the first rectification, and 80° on the second; or if distilled through a condensing head before the temperature of the head has passed 60° , but by extending the distillation from this spirituous substance a little further, its volatility is but slightly diminished, and I obtain a mixture of it in any proportion with the spirituous substances of higher boiling points. If it be required to obtain alliole from the naphtha, the naphtha should not have been treated with concentrated acids before distillation, since this substance is, for the most part, changed by such substances. Immediately following alliole in the scale of boiling points is benzule, which, when pure, boils at 80° , and becomes solid at zero; it exists in the naphtha, in far larger quantities than the preceding oil, amounting in some cases to one-eighth of the light oil obtained from the tar; it has a smell somewhat resembling almonds when pure, and is extremely volatile. It is not destroyed by agitation with sulphuric acid, (by which I mean oil of vitriol,) and it is convertible into an oil resembling oil of bitter almonds by nitric acid. To obtain this oil in a state of moderate purity is the chief object of the rectification to which I subject the naphtha; I obtain it pure by a process hereafter to be described.

(To be continued.)

COMMERCIAL CHRONICLE AND REVIEW.

THE FLUCTUATIONS IN GOLD—LAWS OF FINANCE—RISE IN GOLD AND EXCHANGE—ITS CAUSES—GOLD DEMAND FOR THE SOUTH—GENERAL SHERMAN'S ORDER—WANTS OF MANUFACTURERS—PRICE OF COTTON—HOARDING GOLD—REMITTANCE OF CAPITAL—CULMINATION OF GOLD PRICE—EXCHANGE RATES—SPECIE MOVEMENT—CURRENT TOWARDS THE CITY—GOLDEN GATE—RATES OF EXCHANGE—LARGE IMPORTS—ACCUMULATION OF MONEY—BANK DEPOSITS—CIRCULATION—SILVER—SMALL NOTES—U. S. DEPOSITS—CONVERSION—LARGE EXPENSES—NEW LEVIES OF TROOPS—PRISES OF STOCKS—FALL OF STOCKS—INTEREST IN GOLD—DUTIES—INCREASED COST OF GOODS—TABLE OF IMPORTS—RISE IN PRICES TO COVER COST—DRAFTS CHECKED TRADE—EXPORTS—TABLE OF EXPORTS.

At the date of our last number the gold movement, consequent upon the large issues of paper by the federal government, had culminated at a price of 20 per cent for gold and 131 for sterling exchange. This, in the latter case, was a rise of 10 per cent in four weeks, and of 20 per cent in ninety days. So sudden a movement could not be expected to maintain itself, since it carried with it the seeds of its own reaction. The law of paper finance, although for a few weeks it may seem to be inoperative, does not fail to exert itself sooner or later, in spite of the most ingenious contrivances to avert its action; and abundance of paper, like the abundance of any other article, will not fail to depreciate its value, which depreciation expresses itself in an apparent rise in the value of other commodities as compared with it. The rise which took place in gold and exchange sprang from two causes that, although they may operate at times with less vigor, will nevertheless be permanent in their action as long as paper promises remain the grand resource of the government. The one leading cause is the disposition to hold gold, and the other, the distrust which induces the remittance of capital out of the country. Every attempt to interfere with the free movement of capital, however injurious it may apparently be, only aggravates the evil. When the armies first advanced South, so as to bring the merchant in contact with the producer of raw materials, a large demand for gold was immediately perceptible, because the holders of materials in disturbed districts demanded gold only. The demand caused a rise in the price of the article, which had a damaging influence upon public credit; but the materials purchased with the gold were of far greater value to the idle manufacturers, who were suffering for cotton. Under these circumstances, General SHERMAN, in an evil hour, issued an order that gold should not be paid, but that holders should take paper. This proceeding had, of course, the effect to make sellers disappear, and General SHERMAN was constrained to rescind the order. When cotton is 45 @ 50 cents in the northern market, and most factories are idle for the want of it, it is no time to quibble about the means of payment. Nevertheless, the demand for gold for those purposes gave a spur to the disposition to buy gold to hold, in anticipation of the regular effects of paper money, and it has proved the best investment during the spring. In the meantime the rise in its price and the complications of the war induced the remittance of large amounts of property out of the country. Inasmuch as that the regular imports into the country exceeded the exports, there was no supply of bills to serve for the remittance of capital, and these were obliged to be covered by specie shipments. The urgency of this demand is seen in the fact that, no matter how high the price of gold rose under the domestic demand, it was worth

still more for remittance, since bills sold at relatively more profitable rates, and the price reached 120. At this rate holders on speculation were desirous to realize. The demand to go South stopped, the current from the interior turned towards New York, and at the same time the rise in bills had stimulated the export of produce, breadstuffs in particular, which had not risen in price. The expense of remitting capital caused the movement to cease for a time, and the price both of bills and gold gradually declined under this enhanced supply and lessened demand. The specie movement was as follows:

SPECIE AND PRICE OF GOLD.

	1861.		1862.		Gold in bank.	Price of gold.
	Received.	Exported.	Received.	Exported.		
Jan. 4...	.....	.....	.....	\$442,147	\$23,983,878	2 a 4 prem.
" 11...	\$1,445,385	.....	\$885,923	1,035,025	25,373,070	4 a 5 "
" 18...	1,446,219	.....	.....	547,703	26,120,859	4 a 4 1/2 "
" 25...	1,246,029	\$22,855	627,767	322,918	26,698,728	2 a 3 1/2 "
Feb. 1...	1,514,154	289,669	.....	310,484	27,479,533	3 1/2 a 3 1/2 "
" 9...	1,052,313	115,693	854,000	976,235	28,196,666	3 1/2 a 3 1/2 "
" 15...	1,056,426	117,101	614,146	1,156,154	28,114,148	4 a 4 1/2 "
" 22...	.....	187,253	759,247	734,512	28,275,992	3 a 3 1/2 "
March 1...	855,755	176,161	741,109	510,774	29,826,959	2 a 2 1/2 "
" 8...	.....	.....	679,075	585,236	30,436,644	1 1/2 a 2 1/2 "
" 15...	815,524	123,316	677,058	477,335	30,773,050	2 a 1 1/2 "
" 22...	.....	91,161	.....	540,968	32,023,390	1 1/2 a 1 1/2 "
" 29...	699,597	6,088	490,368	779,564	32,341,862	1 1/2 a 1 1/2 "
April 5...	996,445	628,708	581,293	673,826	33,764,382	1 1/2 a 1 "
" 12...	1,110,231	323,906	.....	1,505,728	34,594,668	1 1/2 a 2 1/2 "
" 19...	.....	328,127	617,279	693,432	34,671,528	2 a 1 1/2 "
" 26...	844,577	1,000	635,546	1,161,300	35,297,944	1 1/2 a 1 1/2 "
May 2...	.....	800	410,804	712,275	35,175,828	2 1/2 a 3 1/2 "
" 9...	863,600	27,695	484,019	1,574,166	32,239,868	3 1/2 a 3 1/2 "
" 17...	755,102	.....	604,682	1,093,081	30,280,697	3 a 3 1/2 "
" 24...	1,913,355	.....	604,682	938,082	30,672,760	3 1/2 a 3 1/2 "
" 31...	2,282,137	500	224,911	881,452	31,397,284	3 1/2 a 3 1/2 "
June 7...	1,618,876	650	553,035	1,647,299	31,284,832	3 1/2 a 4 1/2 "
" 14...	617,361	18,976	352,391	1,990,327	31,162,048	4 1/2 a 6 1/2 "
" 21...	986,143	222,546	612,461	3,156,988	31,047,945	6 a 6 1/2 "
" 28...	.....	2,070	393,312	3,094,101	30,832,626	7 a 9 1/2 "
July 5...	811,268	2,200	.....	2,647,060	31,790,519	9 a 10 "
" 12...	.....	1,588	641,451	2,424,916	32,098,174	9 1/2 a 17 "
" 19...	1,244,000	1,750	441,179	1,846,023	31,326,609	17 a 20 "
" 27...	.....	4,000	.....	784,587	33,064,575	16 1/2 a 17 "
Aug. 2...	2,128,240	1,382	Golden Gate lost	748,523	34,022,490	14 1/2 a 16 "
" 9...	.....	.....	964,422	890,552	34,611,069	12 1/2 a 13 "
" 16...	941,081	700	.....	700,431	35,301,778	14 1/2 a 15 "
Total..	27,242,318	3,154,960	14,474,566	38,090,997	.....	.....

Under the rising value of gold the amount in the city increased \$4,500,000 from the close of June to the middle of August. Much of this was, however, held by the banks on special deposit for their customers. The exports were much less, and the loss of the Golden Gate at sea cut off an amount of \$1,500,000, intended for London and New York. The rates of exchange sympathized with the fluctuation in gold; but it is to be remarked that the rates of bills, as compared with the price of gold, always left a handsome profit on the export of gold, and the prices of bills were as follows:

RATES OF EXCHANGE.

	London.	Paris.	Amsterdam.	Frankfort.	Hamburg.	Berlin.
Dec. 1,	109 a 109½	5.25 a 5.15	40½ a 40½	41 a 41½	85½ a 86	78½ a 74
" 15,	110½ a 110½	5.15 a 5.10	41½ a 41½	41½ a 42	86½ a 87	74 a 74½
Jan. 1,	110½ a 118	5.12½ a 5.05	42 a 42½	42½ a 43	87½ a 88	74½ a 75
" 15,	113½ a 114	5.05 a 4.90	42½ a 43½	43½ a 43½	87½ a 88½	75½ a 76½
Feb. 1,	113 a 113½	5.10 a 4.95	42½ a 43½	43½ a 43½	87 a 88½	75½ a 76
" 15,	115 a 115½	4.97½ a 4.90	42½ a 43½	43½ a 44	87½ a 88½	76½ a 77
Mar. 1,	112 a 118	5.05 a 5.00	42½ a 43	42½ a 43	87 a 87½	75½ a 75½
" 15,	112½ a 112½	5.07½ a 5.03½	42½ a 43	42½ a 43½	86½ a 87½	74½ a 75
" 22,	111 a 112½	5.08½ a 5.00½	42 a 42½	42½ a 42½	86½ a 87½	74 a 74½
" 29,	111 a 112	5.10 a 5.05	42 a 42½	42½ a 42½	86½ a 87½	74 a 74½
Apr. 5,	111½ a 112½	5.07½ a 5.02½	42½ a 42½	42½ a 42½	86½ a 87½	74½ a 75
" 12,	111½ a 112½	5.10 a 5.03½	42 a 42½	42½ a 42½	86½ a 87½	74½ a 74½
" 19,	111½ a 112½	5.10 a 5.03½	41½ a 42½	42½ a 42½	86½ a 87½	74 a 74½
" 26,	111½ a 112½	5.02½ a 5.07½	42½ a 42½	42½ a 42½	86½ a 87½	74½ a 74½
May 2,	112½ a 118½	4.97½ a 5.02½	42½ a 42½	42½ a 47½	87 a 87½	74½ a 74½
" 10,	113 a 114	4.91½ a 5.02½	42½ a 43	42½ a 43½	87½ a 87½	75 a 75½
" 17,	113 a 114	4.96½ a 5.00	42½ a 43	42½ a 43½	87½ a 88	75 a 75½
" 24,	114½ a 115	4.92½ a 5.00	42½ a 43	43 a 43½	87½ a 88	75½ a 75½
" 31,	114 a 114½	4.95½ a 4.91½	42½ a 43½	43½ a 43½	87½ a 88½	75½ a 76
June 7,	114 a 115	4.95 a 4.91	43 a 43½	43½ a 43½	87½ a 88½	75½ a 76
" 14,	117½ a 118	4.75 a 4.82	43½ a 44½	44½ a 45	89 a 89½	76½ a 77½
" 26,	120½ a 121	4.70 a 4.66	44½ a 45	45 a 45½	40 a 40½	78 a 78½
July 5,	120 a 122	4.70 a 4.62½	55½ a 45½	45 a 45½	45 a 45½	79 a 79½
" 12,	127 a 129	4.88½ a 4.81½	48 a 49	48 a 49	42½ a 43½	84½ a 85½
" 19,	128½ a 131	4.87½ a 4.82½	48½ a 49	48½ a 49	43 a 44	86½ a 87½
" 27,	126 a 129	4.45 a 4.35	47½ a 48½	48 a 48½	41½ a 42½	85½ a 86½
Aug. 2,	125 a 127	4.52 a 4.55	47½ a 48½	47½ a 48½	41½ a 42	82 a 83
" 9,	124 a 126	4.55 a 4.47½	47 a 47½	47½ a 47½	41 a 42	82 a 82½
" 16,	126½ a 127½	4.45 a 4.40	47½ a 47½	47½ a 48	42 a 42½	83 a 83½

The demand for bills was no doubt enhanced by the considerable importation of goods, which arrived freely in August, under anticipations that had been indulged that the duties under the new tariff would not be imposed upon goods actually shipped before that date. The great abundance of money also favored as well the import of goods as the remittance of capital, and this abundance was continually on the increase. It will be observed that since the government began to pay out its paper in the middle of April, the deposits in bank have increased almost uninterruptedly to the extent of \$46,000,000, and that the loans, in the same time, have increased nearly \$30,000,000, which, to a considerable extent, has been deposited with the Assistant Treasurer for employment, at 4 @ 5 per cent interest. The restriction of general business and the adhesion to cash payments have very greatly reduced the quantity of business paper, and in some cases discount days have passed with absolutely no offerings of paper. At call money has been offered at 4 @ 5 per cent, and in some cases 3 per cent, but leading houses do not take it in for want of employment.

It is to be remarked that while this immense abundance of money has manifested itself in the shape of government promises of \$5 and upwards, the bank circulation has also increased \$1,250,000, mostly in small bills, that have aided to drive out silver fractions, which commanded a premium of from 10 to 16 per cent. The new issues of small notes by the government—designed to remedy this to some extent, but what will really greatly enhance the evil—are expected to be ready for issue by the first of September. The amount to be issued will reach some \$36,000,000, and the whole issues of paper authorized will reach \$360,000,000, including the

\$75,000,000. reserved to meet the deposits if demanded. This amount of money was no doubt designed with the faculty of receiving deposits, and of converting into the \$500,000,000 loan to meet the wants of the treasury until Congress should meet; but since then the expenses incurred for the organization of 600,000 more soldiers under the new calls will at least double the government outlays, since these men must have new outfits. It is quite probable that the new emissions of money will further cheapen its price, so as to send larger amounts into the treasury for deposit and also for conversion, should the five twenties again reach par. The fluctuation in government securities have been as follows :

PRICES UNITED STATES PAPER.

		5's, 1861.		5's, 1864.	7-10, 8 years.	6 p. c. certif. 1 year.	August demand notes.	
		Reg.	Comp.				Gold.	
May	10,.....	108½	108	94	104	99½	2½	½
	17,.....	105	105	96	105	100½	3	½
	23,.....	104½	104½	96	105	100½	3½	½
	31,.....	104½	104½	96	105	100	3½	½
June	7,.....	103	106	96	106½	100½	4½	1
	14,.....	103½	107½	97½	106½	100½	6½	3
	26,.....	102½	106½	96½	105½	99½	9	4½
July	5,.....	100½	100½	95	102	98½	10	5½
	12,.....	100	100½	88	103	99	17	7½
	19,.....	98	98	85	101½	97½	19	8
	27,.....	99	99	86½	103	98½	17	6½
August	2,.....	98½	98½	85½	102½	98½	15	5½
	9,.....	99	100	85½	103½	100	12½	5½
	16,.....	100½	100½	90	100	100	15	7½

The fall in the government stocks during the plethora of money may be ascribed partly to the quantity of stocks sent from abroad to realize, and partly to the reverses that overtook the armies. They however gradually recovered after the payment of the dividends in gold. The interest on the first issue of \$50,000,000 7.30's fell due August 19, and was paid in gold at the treasury. The premium on gold being 15 per cent, the holder realized equal to $2\frac{1}{2}$ per cent interest. At some of the treasuries the gold itself was not paid, but the premium allowed. Most of the States also paid their interests in gold. The advance of the government five twenties to par and over, would no doubt cause the conversion of a large amount of floating paper, and make some change in the relative value of paper.

The importations at the port for July have been very large under the circumstances. There was some desire to enter goods, however, before the anticipated new duties should go into operation. As compared with last year there has been an increase of \$12,000,000 in the imports of July, and for the seven months of the current year as follows :

IMPORTS, PORT OF NEW YORK.

	Specie.	Free goods.	Entered for		Total.
			Consumption.	Warehouse.	
January.....	\$163,658	\$2,552,050	\$6,663,396	\$3,141,725	\$12,620,829
February.....	62,007	3,381,473	7,058,174	3,370,486	13,872,140
March.....	89,327	3,476,004	10,312,689	4,841,846	18,719,866
April.....	26,152	2,232,315	7,141,197	3,853,218	13,252,882
May.....	110,888	1,146,093	8,091,120	4,600,920	12,948,516
June.....	61,023	1,122,092	7,278,953	2,874,127	12,336,195
July.....	219,001	1,831,932	13,799,505	4,502,764	20,353,202
Total, 7 months..	\$731,556	\$16,041,959	\$60,445,034	\$28,185,036	\$105,403,625
" 1861	32,906,166	20,257,965	85,191,920	30,441,876	118,797,927

Exclusive of specie the increase has been nearly \$20,000,000, and this increase in the last few months has taken place under advance circulation. The importer has been required to encounter higher duties, and, in consequence of the paper depreciation, higher exchange, and also a premium on gold with which to pay duties. The exchange is 20 per cent higher than in the spring of last year, and the premium on duty notes has ranged 5 @ 9 per cent. The average probably makes goods cost 35 @ 40 per cent higher than last year, and the increase in market prices has not been proportioned to this increased cost. Nevertheless there is a firmness among holders.

The duties collected by the government were very large for the month of July, by reason of the large imports and the quantities taken out of bond. The results were as follows:

REVENUE FROM CUSTOMS AT NEW YORK.

	1860.	1861.	1862.
In July.....	\$4,504,066 04	\$2,069,590 86	\$7,211,817 68
Previous 6 months.....	18,889,679 80	10,585,334 95	25,063,388 08
Total since January 1st..	\$22,893,745 84	\$12,654,925 81	\$32,275,205 76

The fall business has, to some extent, been checked by the military movements of the government, more particularly the orders for drafts, the effect of which was likely to interfere with the business arrangements of great numbers.

The exports of domestic produce have been stimulated by the higher rates of exchange, which have been to the profit of the bill drawer. The exports have been as follows:

EXPORTS, PORT OF NEW YORK.

	Specie.	Foreign.		Domestic.	Total.
		Free.	Dutiable.		
January.....	\$2,658,874	\$27,193	\$149,498	\$12,058,477	\$14,948,487
February.....	3,776,919	49,066	208,757	10,078,101	14,112,843
March.....	2,471,238	65,388	458,917	8,985,176	11,980,714
April.....	4,087,675	56,350	607,678	8,002,094	12,708,797
May.....	5,164,586	76,971	752,797	9,837,693	15,842,097
June.....	9,867,614	43,358	372,561	10,048,832	20,332,375
July.....	8,067,837	1,117,193	449,948	14,050,437	23,684,915
Total, 7 months..	\$36,043,588	1,435,529	\$3,000,161	\$73,055,810	\$113,536,178
" 1861.....	3,260,458	1,888,654	3,699,329	71,030,228	79,878,669

Following the rise in bills, each successive month has manifested an increase in exports. In free foreign goods the increase has been mostly guano shipped to England. The rise in the prices of the breadstuffs shipped has been about equal to the rise in exchange. It is obvious that the value of the produce shipped is governed by the specie price in the market of sale. With the paper depreciation here, the prices will apparently rise until they are higher than abroad. That rise is compensated to the shipper in the superior price he gets for his bill, hence the apparent rise never interferes with the progress of export. Nor is it likely that, for the present, the prices will rise even in paper so much as other articles, since the crops are large—far exceeding the demands of the home market. The harvests abroad may yet make considerable quantities desirable.

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AND
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THE
MERCHANTS' MAGAZINE
AND
COMMERCIAL REVIEW.

OCTOBER, 1862.

GENERAL AVERAGES CONSOLIDATION.

THE civilization of Rome and the civilization of India have each developed themselves in a manner so totally distinct from the other, that the idea of their common origin can hardly be conceived. And yet recent philological researches into the formation of their two languages clearly prove that the inhabitants of each sprung from a common stock. So clear is this proof, that it is asserted that if all historical records were destroyed and mere specimens of each language preserved these alone would serve to show their relationship. The Sanscrit is now acknowledged to be the parent of all European languages, living or dead, and this language bears the same relationship to the modern Hindoostanee that the Latin tongue does to the modern Italian.

The early codification of the Roman customs of law is held by a distinguished modern author* to be the principal cause of the different development of the two countries in civilization. All ancient societies obtained written laws sooner or later, but the period at which their codes were made, exercised the greatest influence over their future progress. In Rome the plebian or popular element successfully assailed the oligarchical monopoly, and a code was obtained early in the history of the commonwealth. At a period when usage was rational and healthy, that is to say, when the customs of the people had been so lately formed, that the circumstances of their origin and the reasons for their adoption were familiar to every one, the celebrated code known as the Twelve Tables was framed. This deliberate methodizing, and adoption into a

* HENRY SUMNER MAINE. "Ancient Law."

body of written law, of ideas and principles of justice, that were before this time only matters of traditionary custom arrested forever that law of development by which usage that is reasonable generates usage which is unreasonable. It at once placed a barrier against the encroachments of the aristocracy upon the liberties of the people, and prevented their reasonable customs from degenerating into superstitious abuses.

On the other hand, in India and in the East generally, aristocracies tended to become religious rather than civil or political, and gained therefore rather than lost in power. Codes were obtained relatively much later than in Western societies. The customs of the people had become corrupt, for the reason that they were obeyed by multitudes who were ignorant of the true grounds of their expediency, and who were, therefore, left to invent superstitious reasons for their permanence. Prohibitions and ordinances originally confined to a single description of acts were made to apply to all acts of the same class. After one kind of food had been prohibited for sanitary reasons, the prohibition was extended to all food resembling it, although the resemblance originally depended upon analogies the most fanciful. So again a wise provision for insuring general cleanliness dictated in time long routines of ceremonial ablution; and that division into classes which at a particular crisis of the social history was, perhaps, necessary for the maintenance of the national existence, degenerated into the most disastrous and blighting of all human institutions—caste. The opportunity thus afforded to the priests of increasing and consolidating their influence was too great to be resisted; and to this end they rather encouraged than suppressed the superstitions of the people. And when codes were finally obtained, they were rather collections of such rules as the priests deemed proper to be observed, than compilations of reasonable usages.

Thus we find that the early introduction of a rational code preserved the liberties of the Roman people, and laid the foundation of that splendid system of jurisprudence, which has so largely affected the civilization of the world. But when a written law came to the Hindoos their liberties were already gone, and their customs had degenerated into superstitions, and they became, and have since continued to be, the most oppressed and the most corrupt of nations pretending to any degree of civilization.

It would appear from these illustrations, that a code has the same influence in fixing the customs of a nation that a literature has upon the natural development of a language. It is asserted that those barbarous nations whose range of ideas is most limited, have still so surprising a word-making power, that tribes from a common stock, separated for a few years, soon lose the power of communicating with each other at all. Not that their changed circumstances give birth to new ideas which they embody in new words, but that they invent new words to express the same ideas. But the moment the language begins to be written this process is forever arrested; and as a consequence the period in its growth at which its literature first appears is of the greatest importance. A brave and free people will naturally possess a very different set of ideas to those which will prevail among an enslaved race, and must necessarily speak a superior language. If that language is arrested by a literature while it is in this condition, it may remain a monument of a noble race long after the people who gave it birth have disappeared from the family

of nations. And in the same way many ancient codes, that of Rome pre-eminent among the rest, remain to prove the almost forgotten greatness of the people who originally framed them.

The mercantile community is, in respect to the rules which govern its transactions, somewhat similarly situated to ancient societies before their laws were codified. The law-merchant which regulates them is little more than a body of customs and traditions. It is true that these customs are many of them as old as commerce itself; and are embodied in many ancient local codes that are surpassed by no modern enactments for wisdom and integrity. It is true also that these customs are not confined to one nation or people, but embrace the usages of the commercial world. And as these codes have no authority but their own intrinsic merit, where their application would be clearly unjust they need never be applied. And as customs that have been handed down for ages unimpaired, and have stood the test of thousands of decisions must almost necessarily be correct, it would be only reasonable to suppose that the decisions of the law-merchant were on the whole more equitable and just than those of the civil law of any country. And this is admitted to be the case. At the same time in the daily transactions of life cases constantly arise in which the law, correct as it may be on the whole, is found to be rather cumbersome in its application. So vast a range of precedents can never be compassed by any but a professional man, and even then only by one of great industry and learning. Hence it follows that most of those whose pursuits require such knowledge are unable to obtain it. For all practical purposes a code of exact rules on these matters would be vastly more convenient; but to obtain such a code the consent of all trading nations must first be obtained; and then, too, the powers of human language would be severely taxed, to make the rules so general as to cover every case, and so clear as to be understood by every one.

Without such a code there must be uncertainty on many points, caused not so much by want of precedents as by ignorance of their existence. For instance, a merchant whose vessel is in distress in a foreign port may have to submit to charges neither founded in principle, nor sanctioned by general practice, and yet be unable to resist them from the want of any distinct law to appeal to. And again, although the broad principles of the law-merchant may be admitted by all nations, yet in the practice founded upon them many discrepancies notoriously exist. It is in the application of a great truth to a particular set of circumstances that individual idiosyncracies appear. This of course must frequently cause confusion and embarrassment and even affords an opportunity for fraud. And finally, there are certain principles just in themselves which should not be pushed too far, and here custom must decide where the limit should be placed. As an example, the loss of interest on money during detention at a port of distress is not allowed as General Average, although undoubtedly the consequence of a General Average Act. Whether these difficulties could be removed by an universal code remains to be seen. One thing is certain, with a code uniformity would be obtained, and this alone would perhaps make amends for the occasional injustice arising from a necessarily strict observance of the letter of the law.

And as in the case of ancient societies the circumstances under which it is obtained will forever stamp it for good or evil, and it may be too late

in the history of commerce to attempt such a measure, or the proper time for its adoption may not yet have arrived.

Commerce has already done much towards breaking down ancient hostilities. In olden times there were examples of the splendor and wealth derivable from it even before Tyre. But in those days the same word signified "stranger" and "enemy." And even in Greece, merchants were frequently pirates when the opportunity offered. In Rome it held no high position, but in the middle ages the greatest of the Medici was so proud of his success as a merchant that he refused to add any other title to his name. And only a few years ago, we might well have believed that the commerce of the Atlantic alone would forever have sufficed to preserve peace between the great nations lying on its borders. And even in these troubled days when the nation, convulsed with civil war, sees one half its people longing for and the other half dreading an armed European intervention in its domestic troubles—there comes a message of peace from the other side of the Atlantic, and merchants here are invited to join their brethren on the other side in an attempt at a universal codification of that large and important branch of mercantile law known as General Average.

France already has a code of laws on this subject; they are a part of the Code Napoleon, but were derived almost entire from the Ordonnance of Louis XIV., which in its turn was principally compiled from the Roman and Rhodian laws. England, up to and during the time of Lord Mansfield, did not differ much in her General Average customs from other European countries. Since that time, however, England has introduced innovations, some of them under the sanction of the courts of law, but more of them as Customs of LLOYD'S.

In this country the common law of England was adopted by us at the time of our Revolution, and with it the General Average law of which it formed a part. It was adopted by us in its best days, however, before the innovations alluded to had commenced. And it has been since developed by a free use of continental learning, and at the present day differs widely from that of England, but not from that of the rest of Europe.

In the month of May, 1860, a circular was issued by several commercial bodies of Great Britain to the commercial bodies of other countries, representing the great inconvenience of the present system of adjusting General Average, and inviting them to send representatives to Glasgow in September, 1860, to "consider the best means of attaining to some degree of uniformity of system." The circular describes the system of General Average as one which pre-eminently requires that the same principles should be acknowledged among the chief maritime nations. But so far from this being the case, however, some of the most important rules not only vary in the same country but in the same port. Uncertainty is always an evil; and in regard to General Average the evil is peculiarly felt. The ship may be owned in one country, insured in another, her cargo owned and insured in several, and the port of destination where the General Average is made up, may be in a country which has different rules to any of the others. What is considered to be a Particular Average on ship in one port, is held to be General Average in another, so that the owner of an outward bound ship may find himself unable to recover his loss either from his underwriters at home, or as General Average abroad; or, on the other hand, he may be in a position to indemnify himself fraudulently twice over.

"A very large proportion of the most important questions rests in England nominally upon the decision of that extremely vague authority 'the custom at LLOYD'S,' but really depends upon the idiosyncrasy of the particular adjuster who may be intrusted with the papers." The greatest evil of all which result from the present uncertainty of the law, is the opportunity which it affords of introducing charges of the most outrageous description, which do not even go into the pocket of the shipowner, but which he feels himself helpless to resist from the want of a law to appeal to.

The result of this circular was the assembling of delegates from various commercial bodies in the following September to discuss the evils complained of, and to suggest a remedy. The suggestion of Judge MARVIN, who represented the Chamber of Commerce and Board of Underwriters of this city, that definite and acceptable rules could not be framed by the Congress, but that they should refer these questions to some of the ablest jurists in the country who might take into their counsel some of the best adjusters, was adopted. He further proposed that these gentlemen might in the course of the year draw up the doctrine of General Average in the form of a bill to Parliament, if they pleased, and what cases were to be included in General Average. This bill was then to be printed and sent to all the commercial cities in the world for revision and correction. By that means a great mass of experience, suggestion and thought would be collected. The bill would then be returned to the central committee in London with the suggestions. A final bill would then be drawn up and submitted to the British Parliament, and if it became a law, the Judge did not think "there would be any great difficulty encountered in the Congress of the United States; and if it were adopted by the two greatest commercial nations, France and other countries would be soon likely to follow, and in the course of four or five years a much greater uniformity might be obtained."

This outline of a bill has already arrived in this city, and is now being considered by our commercial bodies. It is called "General Averages Consolidation," and if the plan which has been so successfully carried out hitherto, should be faithfully pursued, a very valuable General Average Code must be the result. At the same time, the greatest care and deliberation are necessary to make the bill a faithful exponent of admitted principles; and to avoid injustice and error in their application to particular circumstances. The suggestion of Judge MARVIN as to the best method to be adopted in the original bill, might, with great propriety, be carried out here for its correction. A committee "of the ablest jurists of this country, who might take into their counsel some of the best adjusters," should be appointed by the Chamber of Commerce and the Board of Underwriters, to thoroughly revise and amend this instrument, and to return it to its framers with all the suggestions that their united learning and experience might dictate. If care is thus taken, both in this country and in all others to which the bill may be sent, to collect the suggestions of the ablest minds upon its merits, it will bring back to its framers such a mass of "experience, suggestion, and thought," that they can hardly fail to draw up a second bill so just in its principles, and so wise in their application to all practical details, as will readily secure its universal adoption.

An opportunity is thus afforded, such as may never occur again, of comparing the points of difference in the practice of each nation, and of sifting

the arguments upon which they are founded. Those which stand the test of sound reason and common sense, will be likely to secure universal adoption; those, on the contrary, which owe their origin to a superstitious reverence for old and perhaps hardly understood precedents, or which have been purposely twisted by interested parties to further their own ends, will naturally be set aside. In fact, whatever modifications are now due to local causes, or what may be better defined as individual caprice, will disappear, while those founded on the broad principles of justice alone, will remain.

As the practice of marine insurance is now almost universal, General Average contributions cease to be a matter between the parties concerned alone, but have become one in which the underwriters of both parties are most usually interested. Hence it is, that a powerful corporation like LLOYD'S will oftener have an interest in making a General Average a Particular Average than the reverse. For if the whole burden falls upon one of the interests concerned, they may be insurers or they may not; but if it is to be equally diffused among all the parties to the adventure, they are more likely to have insured some, if not all of them. And again, by the custom of insurance a particular average or a partial loss must amount to a certain sum, or no contribution is due, whereas, a general average must always be settled by the insurers no matter how small its amount. And then, too, many expenses which would ordinarily be borne by the owner, become charges on all the interests during the performance of General Average Acts. The effect of the "customs at LLOYD'S" is very manifest in the English practice, and the arguments by which their defenders attempt to support them, are quite curious specimens of logic. One of the most distinguished of these writers, Mr. WM. BENCKE, has such a charming style, and displays such various and extensive learning, that he has taken a high rank among authors upon average. At the same time, some of the arguments which he uses in defence of these unjust practices, introduced by LLOYD'S, are so transparent, that the only wonder is, whether he himself was ever convinced by them.

For instance, a vessel may be disabled by a storm at sea; the damage thus occasioned is a partial loss, and must be borne by the owner or his underwriters; but the disabled ship cannot prosecute her voyage with safety, and the captain decides to make for the nearest port. Before he takes this course the ship and her cargo are in danger of perishing; he is not bound to make this deviation for the sake of earning freight, since that contract expressly excepts "the perils of the sea." If he proceeds, and the ship and cargo are lost, the owner of the goods has no claim on the owner of the ship for indemnity. He puts into port then for the benefit of all the interests at stake, and this act being admitted to be a general average act, it follows that its legitimate consequences are all proper subjects of general average contribution. In this country they are so considered, and every necessary expense that results from the performance of it, is apportioned upon all the interests benefitted. But by the usage at LLOYD'S, the wages and provisions of the crew during the deviation and detention fall upon the owner; the port charges inwards, the notary's and adjusters fees are apportioned upon the several interests; the expense of unloading the cargo is contributed for, but the storage and other expenses when the cargo is actually out of the ship are a special charge upon that interest; and the reloading and clearance fees fall upon the freight. In defence of which, Mr. BENCKE says: "As soon as the object of putting the vessel and cargo in safety is

accomplished, the cause for contribution ceases; for whatever is subsequently done, is not a sacrifice for the benefit of the whole, or for averting an imminent danger, but is the mere necessary consequence of a particular average. If owing to the injury sustained by the vessel, the cargo must be landed to prevent its being more damaged, the charges of unloading, housing, insuring against fire, reloading, &c., very properly fall upon the proprietor of the cargo. For the landing is a necessary consequence of the misfortune that had occurred, and cannot be said to be resorted to for the purpose of enabling the vessel to proceed upon her voyage when repaired, since the goods would have been landed also if the voyage could not have been prosecuted. The vessel, therefore, ought not to be charged with a part of those expenses which were not intentionally incurred for her benefit, but which only incidentally became useful to her. Even if the unloading were resorted to merely for the purpose of repairing the vessel, still, it being the natural consequence of a particular average, and taking place after the ship and cargo are in safety, it cannot be a general average." If arguments such as these are all that can be urged in favor of the contradictory "customs" which prevail at LLOYD'S, when a port of distress is sought to repair accidental damage, it is not surprising that the framers of the new bill should have overturned them altogether, and substituted provisions more in accordance with admitted principles. Section 52 of the bill provides that, "Crews' wages, and provisions, and all expenses consequent upon bearing up for a port of refuge shall, (from the date when the ship deviates from her voyage for the purpose of such bearing up,) be deemed to be General Average within the meaning of this act." Section 57 provides that, "The expense of warehouse rent at a port of refuge, on cargo necessarily discharged there, and the expense of reshipping it, except as to such portion as shall have been discharged in consequence of an accident at such port, and in all cases the outward port charges, properly incurred by the master at such port, shall, in case the ship shall carry on the cargo from such port, or when the original contract of affreightment shall not have been determined, be deemed to be a general average losses within the meaning of this act."

In a word, then, it would appear that the general average practice of the world, although not codified, and dependent upon "usage," still depends on usage so enlightened, that its decisions are, upon the whole, more just than those of the civil law of any nation. It appears also, that its leading principles may now be considered as settled by the common consent of the commercial world. At the same time, it must be admitted, that however clear the principles, there will necessarily be discrepancies in their application, or in their limitation; and also, that these discrepancies may be purposely created, whenever the interest of a large body of men prompts them to do so, as is shown by the "innovations" which the "custom of LLOYD'S" has been allowed to make in English law. The present General Average bill, if adopted, would make no material change in our law, but would save our merchants from the inconvenience of the conflicting and frequently unjust "usage," that now obtains in England, and to which they are obliged to submit, whenever their ships visit ports where British law prevails.

An universally accepted code would remove many inconveniences existing at present, and, properly drawn up, would be a great blessing to commerce. It needs no argument to prove, that if the law depends solely upon "customs," an orderly and systematic arrangement of those customs is pre-

ferable to their present diffused condition. At the same time, the practical difficulties of the task must be considered. In the first place, the legislative bodies before whom it would be brought, both in this country and in England, are not composed of men who have made these matters a special study, and who would, therefore, from the complication of the subject, be entirely incompetent to pass upon its merits. If they attempted to change the most insignificant provisions of the code, they would probably alter it for the worst. And the chances are, that it would come out from the ordeal of a revision by the British Parliament, or the American Congress, so mutilated as to be comparatively worthless. And then, too, it is not within the power of human language to provide for every emergency, and so to frame the provisions of a code that it will cover every case, but a code once adopted as a part of the law of the land, must be literally applied, although that application may be, in some instances, contrary to reason and common sense.

The Social Science Association has already collected and printed the "practice of the various commercial nations" on this subject; they have also caused a bill to be drawn up in the shape of a code, and sent it abroad for criticism. When it returns corrected to them, they will draft a second bill embracing all the amendments. Why should not this second bill be then referred to the various chambers of commerce for authoritative adoption, as the recognized "custom of merchants?" If this is done, it will necessarily be referred to by the courts in their decisions, and finally become a part of the law of every land. According to its merits alone, in this case, will it live or die. The code of the island of Rhodes, though framed a thousand years before the Christian era, was quoted by the Emperor ANTONINE,* and is in our day constantly referred to. The laws of Oleron, (a small island on the coast of France,) compiled about the year 1,200, and the laws of Wisbey, (a port in an island in the Baltic,) of equally ancient date, are still unforgotten. This General Averages Consolidation may perhaps be referred to in future ages as a testimony of the wisdom and the learning of its compilers, and may even cause the older codes to sink into oblivion, or it may be quietly buried in the archives of the society which gave it birth. It is a worthy effort, and one which well deserves encouragement; and if it only succeeds in publishing to the commercial world, an orderly and systematic digest of the existing customs on the subject, it will have accomplished much; but if it secures in any way, their authoritative acknowledgement by commercial bodies, or by legislation, it will have rendered a very important and lasting service to the whole commercial world.

* In the title *de Lege Rhodia de Jactu*, to which we have already referred, Dig. *tr.* 14, title 2, sec. 9, occurs what we should call a case stated to the Emperor ANTONINE, calling for a decision. The answer is, "I indeed am lord of the world, but the law is (the lord) of the sea, whatever the Rhodian law prescribes in the premises let that be adjudged."—*Parson's on Maritime Law*.

PACIFIC RAILROAD.**CONVENTION OF CORPORATORS.****SPEECH OF S. DEWITT BLOODGOOD, ESQ., OF NEW YORK.**

[We understand that an official report of the proceedings of this Convention, recently held at Chicago, will soon be published. Meantime we are indebted to Mr. S. DEWITT BLOODGOOD for a copy of his very able speech on the second day of the Session, in regard to the publication of which the following debate occurred. It was delivered in support of the admirable resolutions reported to the Convention by S. B. RUGGLES, Esq., Chairman of the Committee entrusted with their preparation :

L. A. THOMAS, of Iowa, moved that the speech of S. DEWITT BLOODGOOD be published in pamphlet form. It contains in it a great amount of information, which many people west of the Mississippi would be very desirous of having. The information, of a statistical nature, contained in that speech, is extraordinary.

Mr. CASS—I rise with great reluctance, because the subject under discussion appears to be of a personal nature. I am willing to admit that I scarcely ever heard a document so scholarly, so elaborately, and so skillfully compiled. I listened to every word with the profoundest attention. But, whilst I admire it, I would be very unwilling to give my sanction to all the positions advanced in it. If there be any way of publishing that speech without committing the Convention to some of the points contained in it—if we can get the information contained in it without committing ourselves to its details—I shall be very glad to sanction it.

Mr. THOMAS—In reference to that matter, I may say there are in it some suggestions which I should wish to examine very carefully before I give my full assent to them. Mr. BLOODGOOD, I believe, intends revising it himself, and it is for the purpose of getting this information, which I believe to be so valuable, into the hands of the people at large that I make my proposition.

Mr. BLOODGOOD—What I said before this Convention yesterday was the result of some reflection. I did not expect that the opinions to which I gave utterance would be fully indorsed by every man, for each one of us has his own opinions, and they must go for what they are worth.

The President inquired whether the gentleman who made the motion wished the speech to be published at the expense of the Convention, and reminded him that no finance committee had as yet been appointed.

Mr. THOMAS replied that this was not his intention.

Mr. JOHN CORBY, of Missouri—It appears to me that it would be better to appoint a committee to co-operate with Mr. BLOODGOOD in revising his speech, and preparing it for publication for the benefit of the Convention.

Further remarks were made by members of the Convention to the same effect ; but we omit them, the above being sufficient to show the manner in which the speech was received, and the importance of its early publication. We are sure our subscribers will congratulate us on being able to give them this able and scholarly document in advance of its appearance elsewhere.—*Editor Merchants' Magazine.*]

MR. PRESIDENT AND GENTLEMEN.—Our national character was never better illustrated than on the present occasion. In the midst of a causeless and desperate rebellion against the happiest form of government which humanity was ever inspired to establish, while in the midst of an enormous expenditure of treasure, and the effusion of our most precious blood to preserve this Union, undeterred and undismayed we assemble here to-day under the authority of the National Legislature to organize an enterprise of the vastest proportions and with the most momentous results. A railway across a continent, a connection between the two great oceans of the globe, and a change in the traffic of Europe, Asia, and America—these are the objects which present themselves for our consideration. After years of discussion, numerous surveys, and a general conviction that the proposed work is within our power and our resources, we have been selected to give form and tone and character to the project, and we here thoughtfully, I trust, assume a responsibility which is not for a day, but all time. It is with this feeling I approach the subject, happy to be among the number of those to whom so great and honorable a trust is confided by the people of the United States. This is a meeting of corporators for the time being, intrusted with important duties, so important that on our present action the success of the enterprise may essentially depend.

The shape we give it will be likely to be preserved. If we appeal in the right way to the intelligence and patriotism of the people, we may hope for their support and an adoption of our recommendations ; but, on the other hand, if any other than a comprehensive and liberal spirit prevail, if local interests and personal wishes are to have a preference, we may expect to see an early application for the repeal of the act of Congress, an intention to which utterance has already been given, even in my hearing.

What, then, is our plan ? How shall it best be put forth to the public ? How can we assure capitalists of its remunerative character ?—how convince the people, who have loaned us the national credit, that their confidence is not misplaced, and that their favor is not bestowed on an unworthy and ill-considered scheme ? And how shall we accomplish what we now inaugurate, in the shortest time, in the most substantial manner, and at the least expense ? All this we shall have to point out, if we expect to obtain, outside of the government, any large financial support. It is for us to show this in the first place, for, if the necessary subscriptions are not obtained, sufficient to commence and proceed with the work, the generous aid of the national credit will not be fully available. In this, as in almost all other great efforts, it is the first step which costs.

The letter of our duty is plain enough. It is set forth clearly in the act of incorporation. The first question is, where shall we open books of subscription, with how much notice, and to whom shall this duty be entrusted ? Shall these books be opened without preliminary maps, tables,

explanations, and arguments, or shall these be carefully prepared and given adequate circulation at the start? Shall the number of Directors hereafter to be chosen be thirteen in number, or be enlarged? Shall a railway of almost two thousand miles extent be left to the management of a few or many persons? May they be taken from one State, or distributed equitably among all the States furnishing the capital, or in proportion to the subscriptions? These questions considered in time, and decided in time, will have an important bearing on the immediate success of the project,—immediate I say, for even if we should falter in our present movements, the Pacific Railroad will survive all errors, all mistakes; it is a work certainly and finally to be accomplished.

From the words of the act, I have inferred that the details of the work will fall into the hands of the direction the moment it is duly elected, and that, therefore, we, as the original corporators, need not embarrass ourselves with ulterior matters of engineering or finance. We are not even to put the first spade in the ground, but must see that the money is ready for the laborers when the first turf is raised.

When this project was first entertained, after the conquest and acquisition of California, it was looked upon by many reflecting people as one not only visionary, but not within the range of possibility. The poetry of the idea is, however, found reducible to prosaic fact. We have no longer before us a castle in the air to dream about, but a real, substantial, actual edifice to construct.

This Pacific Railroad is an absolute, exacting necessity. We have a sister State on the shores of a great ocean, which we early sought to reach, to which the star Empire was leading us, and at which we now have actually arrived, unequalled for its mineral wealth, its admirable climate, and its exhaustless fertility, an empire in itself, an ally, a friend in need, the most civilized and prosperous country on the whole Pacific Ocean, not a colony of tawny natives, mixed up with European masters, held by force, and robbed by them at pleasure, but a republican State, recognising the laws of Christianity and civilization, already mature and prosperous. Sprung originally, like another Minerva, from the brain of the American Jove, California could, after a few years, build this road alone. According to the government survey she possesses four hundred thousand square miles of territory, which would give eight States as large as New York, fifty as large as New Jersey, and fifty-seven as large as Massachusetts. With a population equal per square mile to that of New Jersey, California would support eighteen millions of inhabitants; if equal to New York, twenty millions; and if equal to Massachusetts, forty millions.

That she will be a staunch supporter of the work is very certain. Her representatives in Congress in fact secured the passage of the act. Her sons are here with us to-day to see if we comprehend the vastness of the enterprise. To leave such an ally and friend to the hazardous connection of long and dangerous voyages, to the border intrusion of two large foreign dependencies, Russian and British America, would be but a poor return for their loyalty to the Union, and a poor exchange for the valuable products she now sends to us through her golden gates, and which enable us to meet the unfriendly drain of the foreign bankers, not only with impunity but indifference. In the spirit of enlightened selfishness, then, if in no other, we must perceive, that the construction of this railroad is an absolute necessity and an unexampled advantage to ourselves.

We have not only a large and profitable trade with California, but with countries far beyond, which has been conducted, though spiritedly, perseveringly, and profitably for many years, yet at an unnecessary cost. The road to India, to China, to Japan has been a long and circuitous one; we have had to pay toll to the turnpike keepers, the bankers of Liverpool and London, when we wished to pass to the East for our teas, our silks, or our drugs. Freight, insurances, commissions, and premiums on bills of exchange have piled up their charges upon our imports, on something of the principle of KEPLER's famous law, increasing "as the square of the distance."

Let us have this road and our invoices will be shorn of most of these items, so formidable in any European account rendered, as many of us no doubt have happened to know. All we save in these will be a reduction in price to the consumer here at home. The day is near at hand, I trust, that when we drink our cup of tea, we shall do so without having lost a single drop to any inimical banker.

The extent and importance of our East India trade have been growing familiar to the American comprehension. But before we examine into this, let us see what we are to gain by it for ourselves. In Congress, and while the Pacific bill was under consideration, Mr. McDougall, the Senator, and Mr. Phelps, a Member of Congress from California, most ably presented this subject before it, being comprehensive and masterly in their arguments in favor of its passage. Mr. McDougall stated the fact, that the United States Government paid yearly for transportation to California, to be saved by the use of this road, no less a sum annually than \$7,357,000. This was no guess work, it was taken from the Report of the Chairman of the House Committee. It is about 100 per cent more than the interest guarantied by the government on the completion of the road. This difference, with the five per cent reserved to the government by the bill, will pay the whole principal and interest of the bonds years before they mature.—[See *Evening Post*, July 6th, on Mr. McDougall's speech.]

But let us see for a moment, and realise if possible, the results of Mr. McDougall's calculations, which I learn from him, were the result of months of careful consideration, and which are below rather than above the mark.

From his speech in the United States Senate on the bill, we make the following extracts:

STARTLING CALCULATIONS AS TO THE PACIFIC RAILROAD.

The present cost and loss of the transportation of men and merchandise between Boston, New York, Philadelphia, and Baltimore on the one side, and San Francisco on the other, from the best compiled statistics, may be stated thus:

Passenger transits both ways, including overland transits, 100,000, averaging \$150 per capita	\$15,000,000
Time of passenger transits, average forty days, and counting them as dead labor while in transit and otherwise, their average labor worth two dollars per diem	8,000,000
Freights both ways around the Horn, 215,000 tons, at an average of twenty dollars per ton	4,300,000

Value of freights both ways, other than gold and silver, \$110,000,000. On this, by the reason of twice passing through the tropics, there is, from leakage, sweating, and other causes, a loss of not less than seven per cent not covered by insurance.....	7,700,000
Insurance, and gross losses uninsured; that is, where parties are their own insurers, three per cent.....	3,300,000
Interest on the capital which may be considered dead while 135 days in transitu—say four per cent.....	4,400,000
Government transportation, as stated.....	7,357,000
Isthmus transportation (excluding passengers) and insurance on the same.....	3,250,000
Freights to Nevada Territory, employing 2,000 teams 200 days each year, at a cost of twenty-five dollars per team.	10,000,000
Passenger transits to and from Nevada.....	2,500,000
Passengers and freights to and from Denver and Salt Lake, estimated without data at.....	10,000,000
	<hr/>
	\$75,807,000

The cost of the same business and service by a continuous line of railroad from San Francisco to the point of delivery east, and the reverse, may be stated thus:

Two hundred and fifteen thousand tons, at \$30.....	\$6,450,000
Interest on \$110,000,000 for ten days, one-third per cent..	366,666
One hundred thousand passenger transits at \$50 each.....	5,000,000
Ten days each passenger in transit, loss \$2 per diem.....	2,000,000
One hundred tons gold and silver, \$300 per ton.....	30,000
Isthmus merchandise.....	1,250,000
Nevada, Utah, and Colorado passengers and freights, estimated.....	2,500,000
Damage and insurance.....	1,600,000
Government freights and transportation, computed as equal to interest.....	3,773,800
	<hr/>
	\$22,970,466

But there is another important view of this subject. Mr. PHELPS, the Member of Congress from California, in his speech on the same subject, exhibits a statement equally astounding as to the condition of our East India trade, and the losses it is subjected to on its present basis. He remarks:

"Our imports from China in the year 1857 amounted to \$8,356,932, and our domestic exports to China, \$3,019,000, leaving a balance against us of \$5,337,932. In 1858 our imports were \$10,570,536, and our exports \$2,467,645, leaving a balance against us of \$8,102,891. In 1860 our imports from the same source were \$13,566,641, and our exports \$7,170,784, leaving a balance against us of \$6,395,802. These figures exclude the exports of gold and silver. It will be observed that our trade with this nation is rapidly increasing, our imports having risen from 1857 to 1860 about sixty per cent. * * * * *

"It is reasonable to suppose that under any circumstances the balance of the trade will not at any time be less than in 1860; say, \$6,400,000. This amount of indebtedness is mostly paid through English houses, at a cost to us of about twenty per cent. At this rate, continues Mr. PHELPS, the cost of remittance is \$1,280,000 annually, and becomes a part of the price to the American consumers of tea.

"If we can, by the construction of this road, turn this treasure-shipment to new channels, and it can be made from San Francisco in twenty-three days, saving from the present specie route at least sixty days in time, reducing the cost of shipment, including exchange, freight, interest, and insurance, to not exceeding four per cent, it would cause a net annual saving to our people of \$984,000. To the sum thus saved should be added the cost of the same amount of treasure shipped from San Francisco to New York, which cannot be done at less rates than three and one-half per cent, and would amount to \$259,000.

"I may very properly add, that the *entire* balance of trade against us on what is known in mercantile parlance as the East India trade, will not fall short of \$18,000,000 per annum. On this sum the saving in exchange would amount to \$3,600,000. But these are but a small portion of the benefits this country would derive from the diverting of the specie route of the world into American channels of trade."

Fifty millions of treasure which annually find their way to the East by the old commercial routes, would necessarily change their direction and come westward over this road. Nor was Mr. PHELPS out of the way when he said this. Its construction is even now as much dreaded by our foreign enemies, as the restoration of the Union itself. Not long since I cut from a leading London journal a paragraph founded upon this very supposition, though first suggested by speculations in a California print. It reads thus, and is so pertinent that I may be excused for asking attention to its details:

"The California papers state that an enormous sum of money would be saved by English, French, and American merchants in premiums on gold if a steam communication existed between San Francisco and China. California sends to the eastern States of America, England, and France, eight millions sterling of gold yearly to pay for goods which it wants. San Francisco is twenty-five days from China, the Eastern States of America are seventy days, and England and France are sixty days from China. A New York house, we will say, imports every year £100,000 worth of goods from China, and exports goods to the same amount to California. That State pays three per cent on the £100,000 worth of gold sent to the New York house, and the latter pays six per cent to send it to China. Now if steam packet communication existed between San Francisco and China, there would be no necessity to incur the expense of thus sending specie three parts round the globe. California could pay to China the £100,000 owed by the New York house, and thus California; China, and New York would be quits. A telegram from New York to San Francisco could manage the business. In the same manner, California could pay, to China what it owes to France and England. In ten days, by means of the Continental American Telegraph, A, in London or Paris, could send to B in San Francisco, to forward to C in Hong Kong, the amount owing

from B to A, and which A owes to C. About seven per cent out of nine would thus be saved. Now, seven per cent on £8,000,000 is nearly £600,000."

Thus we see the truth is beginning to be perceived abroad, and the article foreshadows the conclusion. I make but a single objection to its corollary—I say it with all possible good humor and courtesy—San Francisco will not be the clearing-house, it will be New York. Threadneedle Street, the barometer of the financial world, will find its fluctuations registered there, and Wall Street will be the vernier of the scale.

But in order to do justice to these considerations, another subject material in interest presents itself. The railway while in itself a project worthy of our utmost exertions to complete it, will necessarily involve another, and this is an ocean mail steam service on the Pacific. I believe that Congress at its last session had a bill before it granting a subvention to a California company of \$500,000 for that purpose. It was not passed; if it had, I should rejoice; I only wish the same assistance had been extended to the Atlantic companies. But I had the opinion then, as I have it now, that this service may be maintained in a simpler and more efficient way. It is well known, that within the last two years a large number of wooden as well as iron steam sloops have been added to our navy. Some of them are very swift vessels; but when this war is over what is to be done with them. Iron armor has superseded wooden walls. The latter must be abandoned in all future naval wars. Our wooden ships of the class I have mentioned, most of them new and costly, will be laid up in our navy yards, laid up "in cold obstruction and to rot;" in all probability a dead loss to the country! All then the government has to do, is to place these supernumerary vessels on the ocean as government mail packets, to reduce their armaments and crews to a peace standard, and establish regular lines on the principal routes between our chief Atlantic and Pacific ports, and those of the foreign countries with which we trade. They will perform the double duty of protecting our commerce, and becoming its active auxiliaries. This will be far cheaper than to grant subventions and monopolies to private companies, and avoid all the unpopularity of such measures. We should not wait a moment to do this, as soon as this war is over. All our ocean mail service is now performed in foreign ships. We have not a regular mail steamer afloat. There is only an occasional private steamer to Havana. If a New York merchant wishes to write to his agent in Liverpool, or Havre, or Bremen, or Rio Janeiro, or Monte Video, or Vera Cruz, or Para, or Hong Kong, or Hakodada, his letter must go forward in an English mail bag. Take ten or twenty of our fastest steam sloops and place them on those routes, and our commerce will immediately revive. We shall be able to compete with all and every of the nations of the old world, in the markets where they thrive, and from which they receive their regular correspondence.

How much might be said in favor of the propriety of this measure, of the necessity of regular commercial correspondence, of the advantage of employing as many of our gallant naval officers as possible after the war is closed, of keeping a picked class of our brave sailors afloat, and of the security it would give our merchants in their foreign transactions. As early as last April, I suggested this plan in the columns of the *New York Evening Post*, and submitted it to the consideration of various distinguished

members of Congress, whose approbation it secured. But in the condition of public affairs the proposition could not even be discussed. I hope that this Convention will think of it before they adjourn, and by resolution or some other way, give it their indorsement. It is material to the prosperity of the Pacific Railroad. I need say but one thing more on this head. The French Government, whether the idea was original with it, or went from this country, I do not know, has recently adopted the plan, and has placed a number of its wooden steam sloops on distant mail routes to carry treasure, passengers, and mails. Strange to say, that while in the construction of river and lake steamers we are far in advance of all other nations, in our oceanic enterprise we are far behind them. Even the cities of Bremen and Hamburg have more mail packet steamships afloat than the United States.

Is there any difficulty in the construction of this road? None worthy a doubt. The numerous governmental surveys, many of them made by engineers whom we now recognise as heroes, have settled the general question. The grades for a great portion of the distance are almost imperceptible. The materials are at hand, and of sufficient cheapness to give assurance of an economical construction. More than this, it is now demonstrated that railways may be built at a far less cost than formerly. One hundred and thirty-seven new railways are about to be commenced in the small islands of Great Britain, under the inducement that they may be built for nearly one-half less than they formerly were. Have we laborers in sufficient numbers to accomplish the work rapidly. This problem is solved by the fact, that we shall have at the close of this war nearly a million of men, who have been inured to fatigue, and the toils of the pick axe and the spade, who have not only shown a love of adventure and action, but the qualities of endurance and resolution. The employment will be congenial to their newly acquired taste and habits, and ensure liberal and profitable remuneration. Emigrants from abroad will flock towards this line of industrial competition, just as when our canal system was commenced, or the gold of California was discovered. As the work will be continuous for many years, we may expect to see colonies settling around the local stations, each station a village or city perhaps, ganglions, knots, and supports to the great nerve which is to thrill with life, to become supports to it as it extends, and braces as it reposes, the great sympathisers with its activity and life. Nor is the work too gigantic in itself. It is said there were giants in other days. I think I can see such now. The American railway system was a Titanic labor, but it was completed. In the ten years ending in 1860 its progress was unexampled. In 1850, the number of miles of railway in operation was 8,588 $\frac{1}{2}$ miles, at a cost of \$296,260,128, about the amount of the whole specie in the country. In 1860, the number of miles was 30,592 $\frac{1}{2}$, the cost \$1,134,432,909, an increase in mileage of 22,000 $\frac{1}{2}$ miles, and of construction \$838,192,781. And four-fifths of this increase of these lines and this expenditure were in the loyal States of this Union, that having been their proportion in pretty much everything but political power, in whatever has been accomplished for the prosperity and glory of this Republic. In this honorable career of railway enterprise, the State of Ohio has led the van, having about 3,400 miles of rails laid within her limits. Illinois comes next with 2,854, New York next with 2,600, Pennsylvania with 2,300, Michigan with 1,673, Indiana with

1,284, Wisconsin with 803, Tennessee 837, and Missouri with 657.

In comparison, then, with the actual amount of money expended on railways during the ten years mentioned, and the increase of mileage 22,000, the work of constructing a railway to the Pacific appears to be but a very simple and easy undertaking. If 22,000 miles of these new railways could be made in so short a time, and \$900,000,000 readily found for their construction, can we not build one not the tenth part of the distance within ten years, and especially when the greatest part of the money is advanced by the Government? In this view of the subject our greatest difficulties absolutely disappear.

On this point, indeed, we need not entertain a doubt. Nor am I without hopes that the road will be found shorter in its lines, much shorter than has been anticipated. The very best surveys we have were made under great disadvantages, and are by no means such as would answer for working plans. For a great part of the distance the difficulties are quite considerable. It is in crossing the mountains we shall meet our crosses. If we could find a straight line between the 100° or 102 degrees of west longitude and the parallel of San Francisco, it would be but about 23 degrees of longitude in extent, or calculating the distance in miles, at from 49 to 59 miles to a degree, on the parallels of north latitude 41 and 42, so that by the actual measurement, the road would not be 1,200 miles in length, could be made in half the contemplated time, and cost perhaps not half the money. I trust that while the road is being constructed from the 100° westward, more deliberate surveys may be made with the purpose of shortening the route, and if a tunnel should be necessary at some point in the mountains, it would be no more than the French engineers are constructing at Mount Cenis, in the Alps between Sardinia and France.

The question which must occupy us first and most seriously, is the financial one. Can the money be had in quantity fast enough and large enough to construct the forty-mile sections from time to time, so as to entitle us to the corresponding credits to be loaned by the Government. I have regretted that the shares were not placed originally at \$100 each, instead of the present amount of 1,000.* For a long time the public will not regard their investments in the stock as a source of immediate personal gain, though the day will come they will lose their breath in racing after it as an investment. When you address capitalists as such, you must show them a probability of the payment of interest within a reasonable time; when you appeal to patriotic minds, and the higher sentiments which overlook private interest for the sake of the public good, dividends may be left out of the inducements altogether. Let us explain for example. The city of New York with all the peculiarities incident to a compact, competing, heterogeneous population has some noble elements underlying all its faults, and in emergencies it is as sure as the foundations of the earth itself. So that whenever you can make a platform on which all can stand and all have an equality of nobleness, you may be sure it will be crowded by its citizens. I believe that almost every respectable inhabitant in New York whose labor or whose income

* The commissioners adopted this idea and will apply to Congress at the next session for the reduction.

is equal to one thousand dollars a year could be persuaded to subscribe at least one hundred dollars to this stock, with a perfect willingness to consider it as a donation if it was necessary, or to sink it altogether. It was done when the Erie Railroad some years since was on the brink of ruin, and the citizens of New York called on at public meetings and in their wards, freely gave their aid, and knew their money would never come back to them. So are there, as I have already said, thousands who will give \$100 to the Pacific Road who are not able to give \$1,000, and who are willing to go to that extent, but are unable to go beyond it.

As to the general financial ability of this country to construct this work, I have not a single doubt. I have already shown what in ten years has been accomplished, and that, too, in the face of money panics and commercial revulsions, which were the effect of ordinary causes, and are attributable to the want of skill and prudence for the time being, in those men and those operations, that, in a career of prosperity are little restrained by wholesome caution, or the lessons of experience. Now the condition of war has compelled a new system of expenditure, and a basis of paper money to meet it. Whether we are bullionists or not, we must admit that no great war was ever carried on with gold and silver only. The French people overturned their monarchy with assignats, our forefathers freed themselves with continental bills, the English, who have shown such a tender sympathy for us in our financial necessities, carried on her great wars with France with very shabby looking paper. The Bank of England notes were made a legal tender, whilst gold was at a premium of 30 per cent, and the silver currency depreciated at the rate of 9d. on 4s. 3d. Spanish dollars restamped at the mint were forcibly passed for \$1.25 cents of our money.

During the war of 1812-15, Mr. JEFFERSON proposed that our Government should issue \$200,000,000 of similar currency, and had it been done, the Treasury would not have been so enormous a loser as it was by the agency of bank credits and bank circulation.

Without much further drain for specie to remit abroad—for it would seem that the exports of the precious metals no longer assume the proportions they did a month ago, with the fact staring us in the face of large and increasing exports also of American cereals and other products, larger during the last month than for any corresponding month in several previous and prosperous years, with a supply of treasure from the Pacific coasts of amounts equal to all we remit—we may safely calculate that there is and will be coin enough at home to resume its customary and useful office as soon as the war is closed. But as matters now stand, while the Government is expending from one to two millions a day, and these millions go into the hands and pockets of our own people, I aver the country, as a whole, is getting richer in its available means than ever it was before. We know the curious and universal estimate of the nature and offices of coin. It is the theme of philosophers, the study of bankers, the average adjuster and balance settler of the foreign merchant, his guide and his idol. But, notwithstanding, in the every day business of life, in the conduct of large transactions gold may be a nuisance. Some gentlemen in this convention could not carry the gold they represent if they had the strength of Hercules. It is almost as cumbrous as the Lacedæmonian currency, and is literally carted about in Wall street in nearly the same way. Policemen walk alongside of the heavy boxes to

see that they are not stolen; porters rush out in squads to lift it carefully into the vaults; it lies there for months and years, and no one ever sees it. It is the poor, much abused, and soiled paper money, that goes cheerfully out in the world to do the work of this concealed and idle treasure. Paper and credit have built our cities and railways, paper and credit are now fighting the greatest battle ever waged for national existence; they are still adequate to the performance of their duties, and are now and ever will be the medium of all extensive trade and commerce, in spite of all the denunciations of men who do not comprehend the diverse wants of mankind, nor care for their necessities, nor appreciate the suddenness of human changes. To say that a dollar of property has no value unless convertible at once into a dollar of gold or silver, is just as absurd as to say that a bushel of wheat in Chicago is of no value unless the bushel measure goes with it. Whatever paper the Government puts forth in this contest, is as yet in the country, and must be invested by those who ultimately retain it as property. It is the sum of all securities, and therefore the best. A bank note is referred for redemption to the capital of a few; a government bill has every foot of land, every atom of personal property, every man's labor and every man's industry and brains pledged for its final redemption. Those who want gold to settle a foreign balance, or make a purchase abroad may well pay for it, and a large premium at that. It is now become a commodity, as the bullionists and money dealers have chosen to consider it. They are all happy, I trust, in the consideration, that whatever coin is worth is now paid them for it. Let them comfort themselves with their own maxims, and admit that according to their own theories gold is now occupying its just place and power. We are content. If we want a barrel of flour, we will pay the price, if we owe a house in Liverpool who will not receive our flour for its salaratus or brass buttons, we will send it the gold and pay its price. But of a practical and efficient currency we never had a better than now, and it is believed that the country can absorb and profitably use all that is afloat and much more. It was never more plentiful in a better time. It will enable us to build this road, if its friends can be enlightened as to the character and consequences of this great work.

But to conclude, as we may obtain a better idea of a great structure by viewing it from a distance, than by looking up at it from its doorway, so of this project, we may best comprehend its grandeur by a slight change in our angle of vision. At the end of the present century it is calculated that the United States will contain a population of one hundred millions of people. What will be then the aggregate wealth of the nation no one has computed. Whatever it is now, will be then in the ratio of one hundred millions to twenty-seven, and equal to all the responsibility which in the course of events may fall upon it. We shall leave our descendants no petty patrimony of a crowded birth-place and room scarce enough to struggle in, but a continent accessible to every son and daughter of industry, and without a limit to the energies of posterity. We must not think this so formidable an enterprise, nor be alarmed at undertaking it. If we leave posterity a war debt to pay off, we give them the means to do it with. There are no doubt many conservative and over-timid minds that shrink from the very idea. So there were when the great Clinton projected the Erie Canal, and was told that it would never be filled except with the tears of a ruined people. So in

our own city of New York. The Croton water system had honest opponents, who predicted that it could never be carried into effect except at the risk of bankruptcy; men of prudence they were, who preferred the safer course of buying water from the tea pump at a penny a bucket, to the hazardous one of bringing a large country river into town. So of the Central Park, a monument of a refined and philosophic spirit, so crowded with grateful visitors, that an admission fee of half a dime each would produce a revenue of \$200,000 a year.

The Panama Railway, which is a faint adumbration of the Pacific, was a wondrous undertaking. But its capital and cost of about \$7,000,000 are now practically equal to \$40,000,000, on which interest is earned regularly and large dividends paid, while a fund is accumulating for future distribution and profit. I do not pretend to foresee what will be the dividend value of the Pacific Railroad to its stockholders. But when even Europe may traffic with Asia more securely, with more rapidity, and with more profit than by any route in the old world by sea or land, and when the distance from London to Canton, as now navigated, is 18,000 miles, and from New York to Canton will be but 11,000, I perceive that New York has advantage over London which must inevitably tell on the future of both cities, and end in the supremacy of that mart which commands the greatest trade. The business of this Pacific road will certainly enrich this country "beyond the dreams of avarice." What towns, what villages, what pastoral wealth will be added to those it already possesses, and out of these what new free States will emerge into life and greatness! What innumerable auxiliary lines will branch off from the main trunk to newly discovered and fertile plains, to happy valleys, and to the exhaustless mineral wealth which lies yet "unprospected" in the teeming Sierras and the gorges and golden sands of the rivers which sweep their bases. What is to prevent millions of oppressed Europeans from abandoning their ties to the soil which gives them black bread for their daily food, and demands all else for their rulers; what is to prevent them from a general *hégira* to the regions of gold, when the transit will be so safe, easy, and economical, and wages may be earned at every mile of the way? In the direct advantages to ourselves, we may estimate the time saved in crossing to the Pacific Ocean and going to the Eastern world, the saving of expense in freights, in insurance, in labor, the increased supplies of gold, the shifting of capital from Europe to the United States, the general distribution of means to live and to enjoy life, the advance of the useful and refined arts, the closer connection of the States, the consolidation of the principles on which our political fabric rests, and our entire independence of the *effete* European systems under which man has so long been kept down and "made to mourn."

All these results we may safely anticipate. The present troubles we are encountering, will prove blessings in disguise. In all ages and countries, principles important in their day bring forth their fruits at maturity. Waters long undisturbed become stagnant, and we should lay these trials to heart like philosophers, or what is best, like Christians. Many of the best elements in the American character, hitherto dormant and unvalued, are coming forth with an unsurpassed splendor. Fortitude, courage, persistency, self-denial, generosity, patriotism, ability, these have at last come to the front, where, I trust in God, they will remain, not again to be

driven into the shade by political managers, who are forever "purring and mousing after petty schemes of political advancement."

Some of these qualities of the American character are showing their power in the development of this work we have in hand. We are to lay out and construct the longest continuous line of railway in the world. Its milestones, if I may be allowed an Irish license of speech, will be set along the parallels of longitude, which will be hourly passed by the trains, at a speed proportioned to their distance apart. Those travelers going west will enjoy a prolonged twilight, those coming east will have an earlier day. The journey will not be more than *we* shall have taken, who come hither from New York and are about to return. Finally, the revenue, the commerce, the crowds, the wealth, the prosperity, the national supremacy that this road will give birth to, overpower the most lively imagination.

Permit me to say in excuse for much I have said, I am not unfamiliar with the organization and construction of railways. I believe our treasurer, as well as myself, might cite one memorable example of a road with which we were connected which has fulfilled all its early promises, and never knew any serious impediments.* But railroads can now be constructed so cheaply in comparison with their former cost, that I believe we can in this instance keep within the estimates. In England, as I have already stated, there are 138 new railway lines seeking legal existence from Parliament on the ground that they can now be built so economically, as to insure ample remuneration to the stockholders, and so it will be here. I can say with confidence, as I do with pleasure, that the selection we have made of a treasurer, is a great move in the right direction, one that will give the public the assurance, that this road is commenced in earnest, that it will be honestly managed and that it will have no serious financial difficulties which cannot be overcome.

Before taking my seat, thanking you for the attention you have given me, I beg that the following letter from an eminent hanker and citizen of New York, may be read by the Secretary. It was handed to me a few hours before I left the city. It is from a gentleman who, in the hereditary possession of a great name, ably wears its honors, and with universal acceptance:

[A letter was then read by the Secretary, addressed to the speaker, proffering the friendly offices of the National Bank, signed by JAMES GALLATIN, Esq. It was received with applause, and ordered placed on file with other documents which were presented for their consideration to the Convention of Corporators.]

* Albany and West Stockbridge.

DISTILLATION OF PETROLEUM.

SPECIFICATIONS OF THE PATENT GRANTED TO CHARLES BLACHFORD MANSFIELD, OF CLARE HALL, IN THE UNIVERSITY OF CAMBRIDGE, FOR AN IMPROVEMENT IN THE MANUFACTURE AND PURIFICATION OF SPIRITUOUS SUBSTANCES, AND OILS APPLICABLE TO THE PURPOSES OF ARTIFICIAL LIGHT AND VARIOUS USEFUL ARTS.

[Continued from page 296.]

As obtained by rectification from the still, this spirituous substance will, however, usually be mixed with a greater or less quantity of alliole and of the next spirituous substance, namely, toluole, which generally exists in the naphtha in large quantities, and which boils, when pure, at about 110 degs. A considerable quantity of this spirituous substance may be obtained by setting aside separately the last portions which pass over through the head in which the water is allowed to boil. After the temperature in the retort has reached 100 degs., or if more than one partial condenser is used by reserving the fluid which will be found in the intermediate receivers or distilling vessels, in which the temperature being between 90 degs. and 110 degs. the benzole has been distilled off, while the cumole together with part of the toluole has been kept back in the retort by the first head, and a further portion may be obtained by setting aside the first portion of distillate, which comes over on distilling through a common retort neck with or without water or steam, the residue kept back in the retort by the head on the distillation of the benzole, and it is best to set aside for toluole what comes over before the boiling point reaches 130 degs. This spirituous substance is not destroyed by agitation with concentrated sulphuric acid, and by concentrated nitric acid it is convertible into an acid somewhat similar to oil of bitter almonds. A current of air passed through it burns with a pale blue flame, and in an open vessel it will take fire on the application of a lighted match to its surface. It is of about the same volatility as good rectified naphtha, and is applicable to many purposes in which a volatile solvent is required. The residue of the crude light oil, after the separation of the aforesaid spirituous substances, consists chiefly of two oils: one of which, viz., cumole, boils at 140 degs., being therefore more volatile than oil of turpentine, whose boiling point is about 160 degs., and the other, viz., cymole, which boils at about 170 degs., and is therefore less volatile than oil of turpentine. Cumole is changed by treatment with concentrated sulphuric acid, so that if a quantity of it, or of the naphtha or oil of coal-tar containing it, be agitated with a quantity of concentrated sulphuric acid, a preparation of cumole equal to about the bulk of the sulphuric acid employed, will be concentrated into a resinous substance, which will become partly dissolved in the acid, and by concentrated nitric acid it is convertible into an aromatic oil somewhat resembling oil of cinnamon in taste and smell, or into an acid resembling benzoic acid, according to the strength of the acid, and to the duration and temperature of the treatment with such acid. And this oil, when the spirituous substances having lower boiling points have been sufficiently separated from it by distillation, will not yield to air passed in contact with it, in a "test bottle," vapor sufficient to afford

a flame; neither will it take fire on the surface when of the ordinary temperature of the air, upon a lighted match being plunged into it in an open vessel. If, however, all the spirituous substances be not separated from it, but only the alliole, and a large proportion of benzole, it will, with the toluole which is mixed with it, have most of the physical characters and properties of the common naphtha of commerce, it should be received, if required separately, when the boiling temperature in the retort is between about 150 degs. and 170 degs., on the first distillation of the light oil, and on subsequent rectification, at a temperature nearer to 140 degs.; it will, however, require many rectifications, before it has been so far freed from the spirituous substances as to yield an oil boiling at 140 degs., and not having the property, like common naphtha, of catching fire on the surface on the approach of a lighted match.

The oil next following in the scale of boiling points, viz., cymole, which boils at about 170 degs., also has not the property like common naphtha of catching fire at the surface at the ordinary temperature of the atmosphere, but will extinguish a match or lighted taper if plunged into it, and this oil, which is obtained chiefly from such portions of the oil of tar as boil at temperatures higher than the previous substance, is more easily obtained free from spirituous substances; and when I require to obtain a volatile oil lighter than water, and characterized by not inflaming on the application of a lighted match to its surface, I usually manufacture an oil which is a mixture of cumole with cymole, and to this mixture, or to the oil having such properties and prepared from coal-tar, or the oil of coal-tar, I apply the name of Camphole.

I now proceed to describe the method which I find most convenient for obtaining such a product.

In distilling the naphtha from which all the benzole has been separated by the processes above described, or in distilling the naphtha or light oil from which benzole has not been separated, for the purpose of obtaining camphole, the ordinary methods of applying fire, or passing steam through the naphtha are applicable, unless it is intended to regulate the distillation by the boiling point of the fluids in the retort, and in that case the distillation by steam is not applicable; and if the thermometer be not used for this purpose, the aforesaid property of non-inflammability at the surface affords a convenient test for the time when the receiver should be changed for the separation of camphole. And I apply this test by occasionally collecting a small quantity of the distillate as it runs from the condensing apparatus, from which it should run perfectly cold, in an open cup or saucer, and plunging into it a lighted match or taper. When the fluid no longer catches fire on the surface, but extinguishes the light, I change the receiver and collect now for camphole. I now continue to receive this oil until either the temperature of the retort reaches 200 degs., or 190 degs., or till the specific gravity of the oil reaches nearly that of water, or till common soft solder placed on the retort melts. Either of these indications shows that an oil having a higher boiling point and greater density than the product which I call camphole is coming over. Camphole in the crude state may have a specific gravity varying from .880 to .980, or if the distillation be continued further, to .1,000, and this increase of density is owing to the mixture of denser oils, especially of naphthaline. When pure (that is, when consisting only of hydrocarbons lighter than water) its specific gravity is not higher than .87, though to reduce it to this purity it requires many

rectifications. It is partly destroyed by strong sulphuric acid, the cumole which it contains being converted by that acid into a viscid resinous substance; it is violently acted on by strong nitric acid, which converts it into heavy oil, or into acid substances, in a manner analogous to the action of that acid on the oil boiling at about 140 degs. This oil is generally accompanied by creosote, whose boiling point is about 200 degs. I rectify this oil by repeated distillation, either setting aside the first portions which come over on re-distillation, and which will be more volatile than the rest of the oil, and will take fire on the surface, or allowing these first portions to be mixed with the subsequent portions; and on each such distillation I prefer to cease receiving when the temperature in the retort reaches 190 degs., or 200 degs.; or, in place of the above, I rectify the oil by one operation in a manner analogous to the method recommended for distilling the more volatile substances from naphtha, except that it is necessary in this case to surround the still head with a fluid, having a higher boiling point than that of water; and for this purpose I prefer oil either volatile or fixed; if fixed oil be used, I maintain the temperature of the oil surrounding the head at a temperature which shall allow all the vapors of the camphole to pass over, but as little as possible of any substance having a higher boiling point; and for this purpose I prefer to keep the temperature of the head at or below 170 degs., by an occasional supply of cold oil, replacing oil which has been heated by the vapor which it condenses. And if volatile oils be used for the partial condensation, I prefer to take some of the oil of coal tar which it has been distilled from, till the temperature of the boiling fluid has reached 170 degs., so that one heat being applied again to the oil, it shall commence to boil at 170 degs.; and I place this oil in the outer vessel which surrounds the condensing chamber in the head of the retort, which outer vessel is not in this case open above, but is fitted with an ascending tube or neck, by which its own vapors are conducted up to a similar head immediately above, which second head is surrounded with water kept as cold as possible, so that all vapor that is evolved from the oil of the lower condenser is condensed and returned to the lower condenser, so that the oil in the lower or proper condenser will remain constantly at 170 degs., or at any temperature at which its previous ebullition may have been arrested. In the rectification of the spirituous substance the residue will sometimes contain a quantity of camphole, which may be separated, if required, in the same manner. Further, the product so obtained as camphole, by the method above described, may frequently be mixed with a certain quantity of the volatile spirituous part of the naphtha, or of common coal naphtha, without becoming inflammable at the surface; and it is convenient sometimes to make such mixture, as the mobility and lightness of the oil are thereby increased; but if too much of the volatile oil be added, the mixture will become too inflammable. Thus far of the crude oil of coal tar, which is lighter than water. I further apply my improvement to the treatment of the heavy oil of tar, commonly called "dead oil."

I submit this oil to distillation, preferring, however, to separate it as it is distilled from the tar, into two portions: a first and second—each of which should be about equal to the half of the quantity of dead oil, which the tar should yield—the object of this being to facilitate the separation from the heavy oil of a considerable quantity of the light oil last described, viz., camphole, which will remain in the heavy oil, and almost entirely in the first half, and which is more easily separated from the first half than from

the whole of the dead oil together. The treatment is the same, however, whether the heavy oil be treated altogether, or whether the first half be treated alone, for the separation of this light oil. I do not treat the second half of the heavy oil alone for this purpose. I either submit this oil to rectification, by means of steam passed through it in the manner ordinarily practised in the rectification of the light oil, or I distil it by application of heat to the retort containing the oil, either with or without the mixture of water with the oil. I am aware that the rectification of the dead oil has been practiced before, for the purpose of obtaining a farther quantity of fine naphtha from the dead oil; but I must remark that I do not practice this for the purpose of obtaining naphtha from the oil, but to obtain a quantity of an oil which differs in its properties from naphtha, in not being inflammable at its surface, when the oil is of the ordinary temperature of the air. If steam be used, the greater part of the light oil will be carried over with the vapor of the water, and will float on the water in the condenser, and I prefer to stop this process when the specific gravity of the oil so carried over reaches 940 degs.; or I submit the oil to distillation in the ordinary manner, and cease receiving as camphole when the specific gravity has risen to nearly that of water, or when the temperature reaches 200 degs., or 210 degs., or when solder will melt on the retort, as described when treating of the distillation of the lost portion of light oil; or I adopt a head to the retort, surrounded with condensing fluid, as described for the lost light oil, whose limiting temperature I prefer to fix at 180 degs., or 190 degs., since the boiling point of the same oil will be raised considerably in this dead oil, by the greater quantity of oils having higher boiling points, which are present with it; and I continue distillation so long as any vapor passes uncondensed through this head, or partial condenser; I mix this distillate now obtained by any of these methods with the lost distillate, obtained from the light oil, as above described, being chiefly the same oil, and characterized by being slightly lighter than water, and so inflammable that it will not take fire on the surface, at ordinary temperatures, on the application of a match. Having separated from the dead oil, or from the first half of it, as much of this oil, which I call camphole, as can be obtained by these methods, I submit the residue to distillation, in a still suited to the distillation of a fluid having a very high boiling point, and therefore requiring a high temperature to be maintained in the retort during distillation; or if the first half of the dead oil has been treated alone, for the separation of the camphole, I mix the residue of it with the second half of the dead oil, or distil it alone; or I treat the residue at once in the manner hereafter described for the purification of the dead oil without previous rectification, but I prefer to distil it once, or oftener, before so treating it, as by this means certain substances are separated from it, which increase its bulk unnecessarily, and which are not required to be purified. And if so much naphthaline be present in the tar as to cause any portion of the first part of the heavy oil to solidify on cooling, when kept separate, I reject the first portions of the oil which distil over, so long as it solidifies when received in a thin film on a cold surface, and I continue to receive the oil either until the distillate, when received upon a cold surface, again commences to solidify, or till it begins to show a decided yellow color, or till the temperature in the retort, as indicated with a thermometer connected therewith, in either of the modes before described, is 300 degs., either of which indications shows that the best part of the fluid oil has come over, and that the residue contains too

much para-naphthaline, which is an oil solid at ordinary temperatures, boiling at a temperature above 300 degs., and which diminishes the fluidity of the oil when mixed with it, and on each successive distillation the same precautions ought to be attended to. This oil, when pure, has specific gravity .900, but from the difficulty of ridding it entirely of naphthaline and para-naphthaline, it is, even when rectified, generally rather heavier than water. It boils, when pure, at about 240 degs. It is not easily destroyed by sulphuric acid; so that oil of vitriol may be used in purifying it. I call this oil, when rectified and purified, *Mortuole*.

I proceed now to that part of my improvement whereby I manufacture a fragrant oil or oils from some of the spirituous substances and oils distilled from coal-tar. I will first state the method of treatment which I find the most convenient in practice. I use a vessel capacious enough to hold about three times the quantity of oil which is intended to be treated, and with a long narrow neck to check any expulsion of vapor or liquid; which vessel may be of any convenient material that will not be injured by strong nitric-acid, such as glass, which should not be thick, lest it be cracked by the heat which may be evolved during the process, and glass offers the advantage of enabling the process in the vessel to be observed. I place in the vessel a quantity equal in measure to rather more than the quantity of oil intended to be treated, of the strongest fuming nitric-acid that can be obtained, of specific gravity at least 1.50; and I prefer to use the pure acid, free from chlorine. I place the vessel in another open vessel, which is filled with cold water, so as to surround the first vessel and keep it cool; I then pour into the acid as much of one of the light oils, or spirituous substances, hereafter to be particularized, as the acid will dissolve. The point of saturation is ascertained by observing when the liquid separates into two layers; I then remove the vessel from the cold water, and warm it cautiously over a gentle heat till the two layers again mix into one clear solution. I then add a further quantity of oil until the solution begins to appear turbid; I then add a few drops more of the acid till the solution is again clear and uniform, and warm the mixture slightly for a minute or two, not however allowing it to boil, I then pour the whole of the mixture into five or six times its bulk of cold water; a heavy yellow or red oil will fall to the bottom of the water, and should be about equal in bulk or rather more than the light oil originally employed. I agitate this heavy oil with successive large quantities of clean water; I allow the oil to settle to the bottom and draw off the water, after each washing, till fresh water, after being thoroughly agitated with the oil, has no longer acid properties, or I wash it with a smaller quantity of a clean filtered solution of carbonate of soda or of lime to remove the acid, and then wash the oil, after subsidence and separation, with a small quantity of water to remove the lime or soda salt. A similar heavy oil may be obtained from the rectified light oil of coal-tar by the action of nitric acid in other ways, as by using an acid of specific gravity a little lighter than 1.50, which will not dissolve the oil in so large a quantity as a stronger acid, and that not without the aid of heat; and if such acid be used it will be unnecessary to immerse the vessel in cold water, as above described, or by agitating the oil with twice its bulk of a mixture of the ordinary strong nitric acid of commerce with an equal measure of oil of vitriol; but by this method the oil will not be thoroughly converted into the required product, or by heating the oil with a mixture of sulphuric acid and nitrate of potash or soda; but I prefer to use the

method above described, as being simpler, and yielding a purer product. And now I come to speak of that part of the oil of coal-tar, which I use for this treatment. The ordinary rectified coal naphtha of commerce, or the oil which I have described as camphole, may be converted into a heavy oil by nitric acid, and if the naphtha or camphole has been previously well purified from the acid and basic oils of coal-tar, the heavy oil so obtained will have more or less of an aromatic or fragrant smell. But I prefer to use the volatile spirituous substance, which I call benzole, since the oil produced from that substance has the most pleasant odor, and for this purpose the benzole should have been previously treated with concentrated sulphuric acid, in the manner which I shall describe, to remove the allirole, pyrrol, and piccoline; but it is not necessary to rectify the benzole thoroughly from the toluole, since the oil produced from the toluole by this treatment is very similar in smell to that produced from benzole. But I prefer to use a spirituous substance which has distilled over while the temperature in the retort, or last rectifying vessel, was between 10 degs. and 100 degs., in which case the oil will be of a light yellow, or orange color, and will have an odor similar to that of oil of bitter almonds, and is useful as a perfume, especially applicable to soap, or for conferring a pleasant flavor, when used in small quantities, upon articles of confectionery. When undiluted, it is sweet like sugar. If cumole, or a less volatile naphtha be used, the color of the heavy oil produced will be usually red, or dark orange color. The odor of the product will be more like that of cinnamon, and certain aromatic acids somewhat similar to benzoic acid will be produced at the same time, as is also the case with cymole. Care should be taken, especially if the less volatile part of the light oil be used, not to allow the action of the acid to take place suddenly, since the acid acts with violence on the cymole, and may expel the contents of the vessel against the person of the operator. It may be convenient in this case to add the acid slowly to the oil, instead of pouring the oil into the acid; and it is evident that the same method may be applied to the benzole. The fragrant oil so obtained may be rectified by distillation, if required, either by passing steam through it, or by heat applied to the exterior of the retort containing the oil; but since the oil boils at a high temperature, viz., at about 210 degs. or 220 degs., and is liable to decomposition if exposed to a higher temperature, it should not be distilled over a naked fire, and it is better to distil it by immersing the retort in a bath of sand or oil, the temperature of which is not allowed to rise above 220 degs. I call the heavy fragrant oil thus produced from the light oil of coal-tar, nitro-benzole.

What I claim in respect to this first part of my invention is, the manufacture from bituminous matters, by acting upon them at suitable temperatures, of spirituous substances, which are so volatile that a current of atmospheric air, at ordinary temperatures, passed through them may, when ignited, continue to burn with a luminous flame till all, or nearly all, such substances are consumed.

I also claim the manufacture from oil, or tarry matters, distilled from coal, by acting on them, or on matters produced therefrom, at different temperatures, of the products herein described, which I have called allirole, benzole, toluole, camphole, mortuole, and nitro-benzole. And here, by allirole, I mean a spirituous substance, which consists chiefly of a dydro-carbonaceous matter, more volatile than benzole; by benzole I mean a spirituous substance whose boiling temperature is chiefly between 80 degs.

and 100 degs., and is such that if cooled to 20 degs. below 0 degs., it will become in part solid; by toluole I mean so much of the light oil of coal-tar as may remain after the separation of the alliole, benzole and camphole; by camphole I mean an oil lighter than water, which, when of the ordinary temperature of the air, will not take fire on the surface on the approach of a lighted match, and whose boiling temperature lies chiefly between 140 degs. and 180 degs.; by mortuole I mean an oil whose boiling temperature lies chiefly between 200 degs. and 260 degs., obtained by the methods above described; by nitro-benzole I mean a fragrant oil prepared from the oil of coal-tar by the action of strong nitric-acid.

And now having described the spirituous substances and oils which I manufacture from coal-tar, or from the oils or naphtha distilled from coal-tar, and the methods by which I manufacture them, I will proceed to the second part of my invention, viz., to that which relates to the purification of volatile bituminous and empyreumatic oils, which are found in nature, or produced by the destructive distillation of organic substances, or of mineral substances, containing or consisting of matters of organic (that is, of vegetable or animal) origin; which invention is especially applicable to the spirituous substances and oils which are manufactured according to the first part of my invention, and is partly applicable to the purification of bituminous and empyreumatic oils in general.

I will proceed to describe this part of my invention as specially applied to the spirituous substances and oils particularly described in the first part of my invention, and as I proceed, will show in what manner it is partly applicable to empyreumatic oils in general. As applied to the purification of the aforesaid particular spirituous substances, it depends partly upon the properties and partly upon the nature of the foreign substances which accompany them, and whose presence in the different parts of the distillate depend upon the different volatilities of these foreign substances approaching more or less closely to those of the oils and spirituous substances which I desire to purify.

And for the more perfect understanding of this part of my invention, I will state what these impurities are, of which I propose to free the hydrocarbons. It is well known that ammonia, in large quantities, is present in the crude tar-oil, besides which there are several oily alkaloids, known to chemists as aniline, piccoline, pyrrol, &c., which have different boiling points, and some one or more of these are found in all the crude oil of tar, at whatever temperature it may have been distilled, as some are very volatile and some are less so. All these bodies are removable from the neutral oils by acids, which for this purpose need not be highly concentrated.

There are certain acid oils, such as creosote, carbolic, and rosolic acid, which are found principally in the less volatile portions of the oil. These acids are removable from the oil by treating it with caustic alkalies. Further, there are some substances in the crude oil which gradually absorb oxygen from the air, and become brown, thus giving the well known property of becoming dark-colored by being kept. There is very little of this substance with the most volatile spirituous substances, and the largest portion of it is found in the oil, which boils between 140 degs. and 200 degs. These substances are removed by being at once converted by treatment with strong acids or caustic alkalies, or other oxidizing agents, into their brown state, in which they are no longer volatile, and are therefore left behind on distilling the oil.

(To be continued.)

COMMERCIAL CHRONICLE AND REVIEW.

BUSINESS—GOVERNMENT DEMANDS—DEPOSITS—GOVERNMENT PAPER—TAXES—EFFECT ON MANUFACTURES—IMPORTATION—DUTIES—DEMAND NOTES—IMPORTS—EXCHANGE—EXPORTS—SPECIE—GRAIN—HARVESTS ABROAD—MORE GRAIN FOR LESS MONEY—COTTON IMPORTS INTO GREAT BRITAIN—RECEIPTS FROM THE UNITED STATES—EXPORTS OF COTTON GOODS—RISE IN COTTON—SPECIE MOVEMENT—EFFLUX OF GOLD—BREADSTUFFS AS A REMITTANCE—EFFECT ON STOCKS—COMPARATIVE RATES—AGGREGATE EXPORT OF GOLD—DEPOSITS AT THE BANKS—SPECIE IN THE BANKS—THEIR PROFIT ON THE RISE—GOVERNMENT INTEREST IN OCTOBER—SPECIE IN FRANCE AND ENGLAND—INFLUENCE OF THE INDIA TRADE—INDIAN DEMAND FOR SPECIE—AMERICAN GOLD TO BUY INDIAN COTTON—GOVERNMENT RECEIVES GOLD ON DEPOSITS—THE COURSE OF POLITICAL EVENTS.

THERE has been rather more business done during the month, although the general course of trade has been checked by the large military movements of the government. The demand for 600,000 men had the effect of calling numbers from their usual employments, and of inducing many to attend to the duties of filling up the regiments, and of arranging their business in view of the contingency of a draft. Nevertheless, there has been a reasonable activity in the different departments of trade. There is, despite the disposition to economize, a gradually increasing scarcity of goods, and growing necessities which demand more or less business. The filling out of the new levies also gave a spur to all those branches of manufacture which are more or less connected with the government requirements, and the prices of raw materials have risen in a marked manner, and there has been some increased demand for money for these purposes, as well as for the large sums paid in bounties to the troops. These sums are estimated at nearly \$90,000,000, and although the collection of it from individual towns and cities caused some demand, the disbursement of it again for the necessities of the soldiers and their families gave a stimulus to business in almost all localities where the troops are mustered. The general business done has, to a far larger extent than usual, been for cash, and, as a consequence, the deposits at the central banks have not ceased to increase, and as will be seen by inspection of the bank returns on another page, are now far larger than ever before. In New York alone they are over \$145,000,000, being an increase of \$50,000,000 since April. The government is by far the largest customer for goods, and as it disburses its paper all those who supply it or its employees with commodities get the paper in exchange, and it accumulates in the banks. Under this process the amount of business paper created is small, and the banks accordingly find very little offering for discount, and they resort to the government securities. The government in making its large demands for commodities offers no equivalent; it merely emits its promises without hitherto having any definite mode of redeeming them. They are indeed convertible into other interest-bearing promises, but this only increases the sum of its liabilities. With the present month, however, commences the operation of the tax law, which is altogether an untried

influence upon this community. The vast machinery of assessors, collectors, inspectors, &c., is to be created and put in operation, and its application will encounter the multitudinous shifts which every description of industry will naturally present to diminish the force of its operation, and this may be expected to affect general business. So much under the law is left to assessors, that when we reflect upon the keen rivalry which has hitherto existed in all branches of business, the fear arises that the tax and the mode of its administration will prove the turning point between success and failure among numbers of producers. The main tax of three per cent *ad valorem* upon the gross value of all manufactures, will prove severe in some cases. In the cotton manufactures at this moment, when the price of the raw material is 53 cents for middling qualities, or five times the ordinary price, and goods have by no means advanced in equal proportion, the manufacturer is crowded between the loss in running and the loss in stopping. A large number of factories are running at a loss. They employ their hands and keep the mills in action, knowing that in the cost of the raw material and the cost of labor expended in producing cloth, (to the extent say of \$100,000 per annum,) there is a loss of perhaps \$4,000 in the operation, inasmuch as the price of the cloth has not risen in proportion to the material, ; but to close the mill and discharge the hands will cost \$6,000 per annum. Hence it is better by \$2,000 to keep the mill running. Now the tax of \$3,000 imposed will inevitably close the mill, because it will make it cheaper to do so. It is said that the manufacturers will put the tax upon the goods to be paid by the consumer. This no doubt will be the case in active markets, sufficiently buoyant to bear the increase, but not as now, when the markets drag behind the raw materials. In this manner a vast number of changes may be expected to grow out of the operation of the tax, and the apprehension of these changes will make a close adherence to cash terms prevalent.

The collection of the taxes will at least cause a current of paper to set into the treasury of the government, thus in some degree supplying it with means, and absorbing much that is now outstanding. The importations at the port have been such, in connection with the high duties, as to raise the sum of the customs to a considerable extent. In the first eight months of the present year the amount collected in New York has been \$37,137,792, or ten millions more than in the corresponding period of 1860. These customs have indeed been collected in the government promises, of which there were outstanding, in demand and treasury notes, about \$85,000,000 available for that purpose. Of this sum there is still outstanding about \$45,000,000, which must be absorbed before the duties are payable in gold. It is to be remarked, however, that the demand notes are now at 16 per cent premium, and gradually creeping up to the value of gold itself. The law of 1857 required that there should be published on the first of every month a return of the amount of treasury notes outstanding, for the information of the public, and that clause was made applicable to the present issues by the law authorizing them, and it is much to be regretted that the Secretary of the Treasury does not comply with that law and make the publication.

The following table shows the imports at the port of New York, monthly, for eight months:

IMPORTS, PORT OF NEW YORK.

	Specie.	Free goods.	Entered for—		Total.
			Consumption.	Warehouse.	
January.....	\$168,658	\$2,552,050	\$6,665,896	\$3,141,725	\$12,820,829
February.....	62,007	3,381,478	7,058,174	3,370,486	18,872,140
March.....	89,827	3,476,004	10,812,689	4,841,846	18,719,866
April.....	26,152	2,282,515	7,141,197	3,853,218	13,262,882
May.....	110,883	1,146,093	8,091,120	4,600,920	12,948,516
June.....	61,023	1,122,092	7,278,958	2,874,127	12,886,105
July.....	219,001	1,831,932	13,799,605	4,602,764	20,353,202
August.....	92,713	982,992	10,289,427	2,939,721	14,304,843
Total, 8 months..	\$823,269	\$17,024,951	\$70,784,461	\$31,124,807	\$119,708,478
" 1861.....	83,955,718	22,174,189	38,551,615	38,102,135	127,647,700

It will be observed that the receipts of free goods have diminished monthly. As compared with last year, the aggregate imports, exclusive of specie, is some \$24,000,000 larger than last year, although the receipts of specie have greatly diminished. The importations now struggle against the increased cost of import on one hand, and the sluggishness of the markets on the other. The rise in the price of demand notes necessary for duties has been 5 per cent during the month, and exchange has ruled about 2 per cent higher. This, on goods paying a duty of 40 per cent, has been equal to an increased cost of 4 per cent on the invoice in one month. This uncertainty of the costs is one of the enormous evils of paper money, now about to be developed.

The price of bills for each week has been comparatively as follows:

RATES OF EXCHANGE.

	London.	Paris.	Amsterdam.	Frankfort.	Hamburg.	Berlin.
Feb. 1,	118 a 118½	5.10 a 4.95	42½ a 43½	48½ a 48½	87 a 88½	75½ a 76
" 15,	115 a 115½	4.97½ a 4.90	42½ a 43½	48½ a 44	87½ a 88½	76½ a 77
Mar 1,	112 a 113	5.05 a 5.00	42½ a 43	42½ a 43	87 a 87½	75½ a 75½
" 15,	112½ a 112½	5.07½ a 5.08½	42½ a 43	42½ a 43½	86½ a 87½	74½ a 75
" 22,	111 a 112½	5.08½ a 5.00½	42 a 42½	42½ a 42½	86½ a 87½	74 a 74½
" 29,	111 a 112	5.10 a 5.05	42 a 42½	42½ a 42½	86½ a 87½	74 a 74½
Apr. 5,	111½ a 112½	5.07½ a 5.02½	42½ a 42½	42½ a 42½	86½ a 87½	74½ a 75
" 12,	111½ a 112½	5.10 a 5.08½	42 a 42½	42½ a 42½	86½ a 87½	74½ a 71½
" 19,	111½ a 112½	5.10 a 5.08½	41½ a 42½	42½ a 42½	86½ a 87½	74 a 74½
" 26,	111½ a 112½	5.02½ a 5.07½	42½ a 42½	42½ a 42½	86½ a 87½	74½ a 74½
May 2,	112½ a 113½	4.97½ a 5.02½	42½ a 42½	42½ a 47½	87 a 87½	74½ a 74½
" 10,	113 a 114	4.91½ a 5.02½	42½ a 43	42½ a 48½	87½ a 87½	75 a 75½
" 17,	113 a 114	4.96½ a 5.00	42½ a 43	42½ a 48½	87½ a 88	75 a 75½
" 24,	114½ a 115	4.92½ a 5.00	42½ a 43	43 a 48½	87½ a 88	75½ a 75½
" 31,	114 a 114½	4.95½ a 4.91½	42½ a 43½	43½ a 48½	87½ a 88½	75½ a 76
June 7,	114 a 115	4.95 a 4.91	43 a 43½	43½ a 48½	87½ a 88½	75½ a 76
" 14,	117½ a 118	4.75 a 4.82	48½ a 44½	44½ a 45	89 a 89½	76½ a 77½
" 26,	120½ a 121	4.70 a 4.66	44½ a 45	45 a 45½	40 a 40½	78 a 78½
July 5,	120 a 122	4.70 a 4.62½	55½ a 45½	45 a 45½	45 a 45½	79 a 79½
" 12,	127 a 129	4.38½ a 4.31½	48 a 49	48 a 49	42½ a 43½	84½ a 85½
" 19,	128½ a 131	4.37½ a 4.32½	48½ a 49	48½ a 49	43 a 44	86½ a 87½
" 27,	126 a 129	4.45 a 4.35	47½ a 48½	48 a 48½	41½ a 42½	86½ a 86½
Aug. 2,	125 a 127	4.52 a 4.55	47½ a 48½	47½ a 48½	41½ a 42	82 a 83
" 9,	124 a 126	4.55 a 4.47½	47 a 47½	47½ a 47½	41 a 42	82 a 82½
" 16,	126½ a 127½	4.45 a 4.40	47½ a 47½	47½ a 48	42 a 42½	83 a 83½
" 23,	126½ a 128	4.45 a 4.40	47½ a 47½	47½ a 48	41½ a 41½	82½ a 83½
" 30,	126½ a 127½	4.45 a 4.40	47½ a 47½	47½ a 48	42 a 42½	83½ a 84
Sept. 6,	128½ a 130	4.36½ a 4.32½	48½ a 49	48½ a 49	42½ a 43	85 a 85½
" 13,	126½ a 131	4.36½ a 4.30	48½ a 49½	49 a 49½	42½ a 43½	85½ a 86½
" 20,	128½ a 129½	4.42 a 4.35	48½ a 48½	48½ a 48½	42½ a 42½	85 a 85½

The exports from the port during the past month have been as follows :

EXPORTS, PORT OF NEW YORK.

	Specie.	Foreign.		Domestic.	Total.
		Free.	Dutiable.		
January.....	\$2,558,374	\$27,193	\$149,493	\$12,053,477	\$14,948,437
February.....	3,776,919	49,066	208,757	10,078,101	14,112,843
March.....	2,471,233	65,388	458,917	8,985,176	11,900,714
April.....	4,037,675	56,350	607,678	8,002,094	12,703,797
May.....	5,164,536	76,971	752,797	9,837,693	15,342,097
June.....	9,867,614	43,358	372,561	10,048,832	20,332,375
July.....	8,067,337	1,117,193	449,948	14,050,437	23,681,915
August.....	3,713,532	417,100	256,680	13,046,339	17,833,701
Total, 8 months.	\$39,757,220	1,872,629	\$3,256,831	\$36,102,199	\$131,369,379
" 1861.....	3,264,055	1,946,619	3,876,911	82,682,529	89,769,117

The exports of specie have been less for the month of August, under the rise which has taken place in its value and the impetus given to the export of breadstuffs. The movement in those articles has been very large for the year, and their value from the port of New York has been \$65,000,000, or three-fourths of the whole value of domestic exports. The export quantities sent to Great Britain and Europe will be found on another page of this number, and it will be observed that the quantity so sent has been larger than ever before, and has proceeded at a small price. In other words, we have given large quantities of grain for little money, yet those quantities of grain exported to uncertain markets have been the chief dependence for the payment of the goods imported. For the coming year the wants of Europe, in respect to grain, are represented as less, but the imports will not, in all probability, be much less. The crops are now, at this early period of the year, represented as good in England, and, on the other hand, the distress in the manufacturing districts is very great, and this leads to diminished consumption of food. The probability is, therefore, that if as much grain is exported this year as last it will realize less money. The following table, from the English official returns will indicate the effect of the war upon her trade. The cotton imported into Great Britain for seven months, to August 1, 1862, was as follows :

	Brazil.	Egypt.	East Indies.	Other places.	U. S.	Total.
1861.... cwts.	68,223	256,024	1,041,798	33,198	6,714,499	8,111,743
1862.....	118,775	396,017	1,189,289	170,200	40,482	1,884,763
Decrease.....					6,674,017	6,226,979

The value of the cotton imported in 1861, was \$117,500,000; in 1862, \$38,000,000—a decrease of \$79,500,000 in the money paid for cotton alone. This is one reason of the continued abundance of money in England. The decline in the amount paid to the United States was one hundred million. Owing to the fall in the price there was also a fall in the amount paid to the United States for food, thus :

VALUE OF CERTAIN IMPORTS FROM THE UNITED STATES FOR SIX MONTHS.

	Cotton.	Wheat.	Wheat Four.	Total.
1861.....	£20,706,200	£3,332,038	£1,844,705	£25,882,143
1862.....	226,937	3,067,549	1,041,905	5,236,391
Decrease.....	£20,479,263	£264,489	.....	£20,645,752

Notwithstanding the great decrease in the imports of raw cotton into Great Britain, her exports did not decline in proportion. They were as follows:

	Cotton Goods.	Cotton Yarn.	All other goods.	Total Exports.
1861.....	£21,117,913	£5,300,555	£43,819,217	£70,237,685
1862.....	17,541,415	4,080,328	48,024,637	69,446,480

The well known influence of distress in England is to increase exports of those goods the consumption of which diminishes at home. The over stocks of cotton goods are now greatly reduced, and the price of cotton has risen to 62 cents per pound for New Orleans. The effect of a re-opening of the Southern ports for the sale of cotton would, under these circumstances, produce an enormous demand for money in England and at the North. It would be a long time before cotton would fall to its old level. In the meantime, breadstuffs being the only dependence of the North, to pay for sugar, tea, coffee, and other imports, the prospect is of a large export of specie, of which the movement has been as follows.

SPECIE AND PRICE OF GOLD.

	1861.		1862.		Gold in bank.	Price of gold.
	Received.	Exported.	Received.	Exported.		
Jan. 4...					\$442,147	\$23,983,378
" 11...	\$1,445,385		\$885,928	1,085,025	25,373,070	2 a 4 prem.
" 18...	1,446,219			647,708	26,120,859	4 a 5 "
" 25...	1,246,029	\$22,855	627,767	322,918	26,698,723	2 a 3 1/2 "
Feb. 1...	1,514,154	289,669		310,484	27,479,533	3 1/2 a 3 1/2 "
" 9...	1,052,313	115,698	854,000	976,235	28,196,666	3 1/2 a 3 1/2 "
" 15...	1,056,426	117,101	614,146	1,156,154	28,114,148	4 a 4 1/2 "
" 22...		187,253	759,247	734,512	28,275,992	8 a 3 1/2 "
March 1...	855,755	176,161	741,109	510,774	29,326,959	2 a 2 1/2 "
" 8...			679,075	585,236	30,486,644	1 1/2 a 2 1/2 "
" 15...	815,524	123,816	677,058	477,335	30,773,050	2 a 1 1/2 "
" 22...		91,161		540,968	32,028,390	1 1/2 a 1 1/2 "
" 29...	699,597	6,088	490,368	779,564	32,341,862	1 1/2 a 1 1/2 "
April 5...	996,445	628,708	581,292	678,326	33,764,382	1 1/2 a 1 "
" 12...	1,110,231	323,906		1,505,738	34,594,668	1 1/2 a 2 1/2 "
" 19...		323,127	617,279	693,432	34,671,528	2 a 1 1/2 "
" 26...	844,577	1,000	685,546	1,151,300	35,297,944	1 1/2 a 1 1/2 "
May 2...		800	410,804	712,375	35,175,328	2 1/2 a 3 1/2 "
" 9...	868,600	27,695	484,019	1,574,166	32,239,868	3 1/2 a 3 1/2 "
" 17...	755,102		604,682	1,093,031	30,280,697	3 a 3 1/2 "
" 24...	1,913,355		604,682	938,082	30,672,760	3 1/2 a 3 1/2 "
" 31...	2,282,127	500	224,911	881,452	31,397,284	3 1/2 a 3 1/2 "
June 7...	1,618,876	650	553,035	1,647,299	31,284,882	3 1/2 a 4 1/2 "
" 14...	617,361	18,976	352,391	1,990,327	31,162,048	4 1/2 a 6 1/2 "
" 21...	986,148	222,546	612,461	3,156,988	31,047,945	6 a 6 1/2 "
" 28...		2,070	393,213	3,094,101	30,832,626	7 a 9 1/2 "
July 5...	811,268	2,200		2,647,060	31,790,519	9 a 10 "
" 12...		1,588	641,451	2,424,916	32,098,174	9 1/2 a 17 "
" 19...	1,244,000	1,750	441,179	1,846,023	31,926,609	17 a 20 "
" 27...		4,000		784,537	33,064,575	16 1/2 a 17 "
Aug. 2...	2,128,240	1,382	Golden Gate lost	748,523	34,022,490	14 1/2 a 16 "
" 9...			964,422	890,552	34,611,069	12 1/2 a 13 "
" 16...	941,081	700		700,431	35,301,778	14 1/2 a 15 "
" 23...	1,176,434	1,040	1,089,111	919,825	35,538,486	15 a 15 1/2 "
" 30...	757,629	9,280		1,137,644	35,640,984	16 a 16 1/2 "
Sept. 6...	1,100,693	5,120	807,563	551,097	36,138,928	16 1/2 a 18 1/2 "
" 13...	953,340	69,859		1,042,335	37,125,245	19 a 19 1/2 "
" 20...	937,776	11,150	984,415	490,895	37,368,037	17 a 17 1/2 "

Total.. 32,168,190 3,248,409 17,305,655 42,233,208

The efflux of gold has subsided from the large exports of June and July, which were stimulated by the quantities of stocks sent hither for sale, and which could be realized at a comparatively lower rate in gold. Thus, in June government coupons that could be sold at 106, and remitted with exchange at 114 in August. The stock was only 98, and exchange had risen to 130, which was 6 per cent less for the stock, and 16 per cent more to remit. This being more or less the case for all stocks, the process of conversion became too costly, and attention was turned to breadstuffs as a means of remittance. The gold continued to flow out, however, since the balance was largely against the country, and as it diminished in volume here the price rose :

PRICES UNITED STATES PAPER.

		—6's, 1861.—		5's, 1874.	7 8-10, 3 years.	6 p. c. certif. 1 year.	Gold.	August demand notes.
		Reg.	Coup.					
March	1,.....	98½	92½	85½	99½	..	2½	..
"	18,.....	98	98	86	100	..	..	..
"	19,.....	94	94	88	100	..	1½	..
"	26,.....	94½	94½	87½	100	97	1½	..
April	1,.....	98	98	87	99½	96½	2½	..
"	7,.....	98½	98½	87	100	97	1½	..
"	30,.....	97½	98½	89½	102½	99½	2½	par.
May	10,.....	108½	108	94	104	99½	2½	½
"	17,.....	105	105	96	105	100½	3	½
"	28,.....	104½	104½	96	105	100½	3½	½
"	31,.....	104½	104½	96	105	100	3½	½
June	7,.....	108	106	96	106½	100½	4½	1
"	14,.....	108½	107½	97½	106½	100½	6½	3
"	26,.....	102½	106½	96½	105½	99½	9	4½
July	5,.....	100½	100½	95	102	98½	10	5½
"	12,.....	100	100½	88	103	99	17	7½
"	19,.....	98	98	85	101½	97½	19	8
"	27,.....	99	99	86½	103	98½	17	6½
August	2,.....	98½	98½	85½	102½	98½	15	5½
"	9,.....	99	100	85½	103½	100	12½	5½
"	16,.....	100½	100½	90	100	100	15	7½
"	23,.....	101	101	90	104	99½	15½	8
"	30,.....	101½	101½	90	104½	100	16½	8½
Sept.	6,	99½	99½	88½	103½	99	18½	8
"	13,.....	99½	99½	88½	103	98½	19½	8½
"	20,.....	102	102	90	104½	99	17	12½
"	26,.....	101½	101½	90½	104½	99½	20½	16½

It will here be observed that the value of the 1-year certificates, on which the interest was paid every six months in gold, has been, notwithstanding the low price of money, 3 @ 4 per cent on call below par. The demand notes of the government, receivable for customs, have latterly risen more rapidly than gold. Because of the more active demand for duties at the close of July, they were 6½, and September 20, 12½ per cent premium—the price of gold being the same.

It appears that since the suspension of the banks at the close of December, there has been received from California \$17,305,600, and there has been exported \$42,233,203, showing a loss of \$24,900,000. In the same time there has been sent South for produce, estimated, \$6,000,000, making a total of \$31,000,000. Gold has, however, entirely gone out of circulation, and accumulates in the banks, as well on their own account as for the speculators who hold it in the banks on special deposit. It is known that many of the banks, like the Chemical Bank of New

York, have never suspended their own specie payments. It does business, however, in government money. Those who deposit paper receive paper back; also, those who deposit gold get gold back—a double currency is thus established. When buyers of gold place it in deposit it is kept, as of yore, for their use.

It will be observed that as the banks hold, by the returns, \$37,000,000 of specie, worth 20 @ 21 per cent, if it was all their own they would have profited to the extent of \$7,000,000, simply by the depreciation of paper. It is remarkable that, notwithstanding the large amount of government paper out and coming out, the banks, so far from having their circulation restricted by it, have largely increased their issues. Those of the city of New York now have \$9,700,000 outstanding, against \$5,300,000 last March—an increase of \$4,400,000. It results from the rise in gold, or, more properly, the depreciation of paper, if the banks own the gold now in their vaults they would have made their circulation clear, since that circulation is payable in government notes. Thus the banks have held on an average \$35,000,000 since April, when it was nearly par in demand notes. That sum will now realize \$42,000,000 in demand notes, giving a profit of \$7,000,000, which will more than redeem all their own notes then outstanding. These new issues are doubtless small notes, demanded by the disappearance of gold and silver from circulation. The bank institutions are thus profiting largely by their paper issues. The deposits of paper with them they have converted into government stocks, and these stocks, on which the interest is payable in gold, they have deposited with the Bank Department for circulating notes, which are gladly taken by the public in small denominations. The payments of interest in gold by the government is now become a serious matter, since the value of gold ranges from 16 @ 20 per cent. The interest, amounting to \$1,875,000, on the October issue of 7.30 bonds is due in gold on the 19th. If the government was required to go into the market and buy that gold at the present price—17½ per cent premium—it would pay \$327,925, which raises the annual interest to near 9 per cent. This immense profit is made by the banking institutions on the basis of the sinking value of paper as compared with gold and silver. The effect of the stoppage of the cotton exports operates to carry gold out of the country as a consequence of the absence of the bills which the cotton should furnish. But the same cause operates in another manner to cause a direct demand for gold to replace the silver which is drawn to India. In usual years the demand for silver for India is very large, the balance being in favor of that country. In the first seven months of the present year the movement of silver and gold in France and England has been as follows:

	France.—		England.—	
	Gold.	Silver.	Gold.	Silver.
Import	\$60,416,200	\$16,239,101	\$56,027,450	\$33,308,220
Export	31,260,101	17,428,107	38,002,120	33,029,305
Excess exports.		\$1,189,006	\$17,025,330	\$278,915
“ imports	\$29,156,099			

The exports of gold from England are to France and the North of Europe, silver returning in exchange, to mix with that coming from Mexico and South America, in export to the East Indies. The demand for silver

for the East Indies increasing with the demand in England for East India products. The state of the cotton market has been such as to draw largely upon East India for raw cotton, and to diminish the quantity of cotton goods sent thither, as follows :

	Cotton from India.		Goods to India.
	Cwts.	Value.	
1861.....	692,770	£1,683,190	£7,873,781
1862.....	1,001,427	8,914,012	6,029,111
Increase.....	.....	£2,231,022	.....
Decrease.....	.....	.....	£1,844,670

Thus there has been \$11,000,000 more bought of India and \$9,000,000 less sold to her of cotton in six months. The result was an export of \$28,009,000 in silver in seven months ending July 31, 1862, or \$3,000,000 more than in the same time last year. Silver in London rose, consequently, from 60*d.* per ounce to 62*d.*, for Mexican dollars, or rather more than 3 per cent. As a consequence, gold was more in demand for the Continent, to exchange for the silver desired for the India market. England was required to pay India double the money for the same quantity of cotton. During the six months ending August 1st, England imported from the United States 4,194,900 lbs. of cotton, at an average of 25 cts. per pound. In the same period of the previous year she imported from the United States 660,873,937 lbs., at an average of 15 cts. To draw her supplies from India at double the usual price will, it will be perceived, involve a drain of specie to India which will carry thither all that is accessible. In other words, all the specie held by the Northern States will be in demand to supply England with India cotton. The influence of that demand upon the finances of the government will be very considerable, since its credit must be affected by the visible rise in gold which an active and effective demand for it will not fail to create, and which makes more onerous at every recurring dividend-day the obligation to pay interest in gold. The present course of the import trade indicates that the government paper will suffice to meet the duties for a year to come. After it is exhausted the customs will be received in gold in sums sufficient to pay the interest on the debt. This will relieve the government from the expense of buying gold, but it will throw it upon the importers. In other words, it will by so much enhance the duties to be paid by the consumer, and will operate as a higher rate of interest; but the mode of doing it is far more injurious than would have been a direct tax. The department, to meet this gold difficulty, agreed to receive gold on deposit at the Treasury department at 4 per cent interest payable in gold. Thus putting off the necessity of buying gold until the exhaustion of outstanding Treasury notes shall give the government gold for duties. The cotton and other production of the South have hitherto been a large proportion of the national wealth and government support. The course of events has now made those productions for the future improbable, since the proclamation of the President, in accordance with the law of Congress, changes the whole condition of Southern labor and undermines the productions at least for a time. This procedure throws the whole weight of the government debt and expenses upon Northern industry, and greatly complicates the financial position.

COMMERCIAL REGULATIONS.

1. THE TAX ON MANUFACTURED GOODS. 2. LEGAL TENDER NOTES IN CHICAGO WITHOUT THE TREASURY DEPARTMENT STAMP. 3. THE DUTY ON CHAIN CABLES AND OTHER ARTICLES. 4. FOREIGN BONDHOLDERS AND THE TAX BILL. 5. PALMYRA ISLAND. 6. REGULATIONS FOR TRADE ON THE MISSISSIPPI RIVER. 7. CHICAGO CURRENCY. 8. COMMISSIONS TO PURCHASERS OF STAMPS. 9. DEBENTURE CERTIFICATES.

THE TAX ON MANUFACTURED GOODS.

THE following correspondence is of great interest and importance to manufacturers :

*Treasury Department, Office of Internal Revenue, }
Washington, D. C., Aug. 8, 1862. }*

To the Hon. S. P. CHASE, Secretary of the Treasury :

SIR : I am in daily receipt of letters containing inquiries relative to the construction of the seventy-fifth section of the act entitled "An act to provide internal revenue to support the Government, and to pay interest on the public debt." The magnitude of the interest involved in these inquiries is such that I desire the opinion of the Solicitor of the Treasury, or other appropriate legal adviser of the Department. The questions on which I ask advice are :

First, Will a manufacturer, who, previous to Sept. 1, shall have removed goods or wares, otherwise liable to taxation, from the place or premises where manufactured, to another place, or to other premises in the same city or town, be thereby exempted from assessment on goods so removed ?

Second, Will a manufacturer, who, previous to Sept. 1, shall have removed goods or wares, otherwise liable to taxation, from the town or city where the manufactory is situated to another town or city, be thereby exempted from taxation on goods so removed ? These questions assume that the manufacturer is the owner of the goods on the 1st of September. Should the opinion be that the manufacturer in the cases stated is exempt from taxation, I then desire to know whether a manufacturer of the articles mentioned in schedule C will, under the same circumstances, be likewise exempt from taxation.

Your obedient servant,

GEORGE S. BOUTWELL,
Commissioner of Internal Revenue.

The Solicitor of the Treasury, to whom this letter was referred, returned the following answer :

Treasury Department, Solicitor's Office, Sept. 6, 1862.

SIR : I have the honor herewith to return the letter of the Commissioner of Internal Revenue, dated Aug. 8, 1862, asking the opinion of the Solicitor of the Treasury upon certain questions which are stated by the Commissioner. By an inspection of the first paragraph of the section referred to, it will be perceived that there are several classes of merchandise which are made subject to duties : First, such as are produced and sold after the

1st day of September, 1862. Second, such as are manufactured or made and sold after that date. Third, such as are removed for consumption; and Fourth, such as are removed for delivery to others than agents of the manufacturer or producer within the United States or Territories thereof, after the same date.

It will also be perceived that, giving to the language employed in the description of the last two classes its widest signification, those classes would embrace goods removed for consumption in the one case, or for delivery in the other, whenever—"at whatever time"—they might have been manufactured, or "from whatever place the removal might be made." The object of the last proviso of the section was to limit the effect of the language thus employed. This limitation has been made by providing that the duty shall apply only, first, to such articles as are manufactured on or after the day specified, in which case it is immaterial from what place the removal occurs; and, second, to such as are manufactured and "not removed from the place of manufacture" prior to that date; thus, in the latter case, rendering the place of manufacture the only one a removal from which will subject the goods to duty.

The remaining points which it will be necessary to consider in order to supply answers to the first two inquiries of the Commissioner are, first, What is to be deemed the place of manufacture? and, second, What will amount to a removal from it? Upon the first point, I am of opinion that by the expression, "the place of manufacture," Congress intended to designate the premises where the manufacture is carried on, together with the store-rooms therewith connected, and not the town and city in which the manufacture is prosecuted. I do not conceive it to be essential that the place of storage be on the same lot, or even adjoining the lot on which the goods are actually produced; but it must be a place connected with the manufactory, and used, as to the goods in question, as a place of storage.

The other point, so far as it involves more than the mere fact of physical removal—if, indeed, it be anything more than a modification of the question just considered—is one, as it seems to me, of some difficulty. Ordinarily, the place of manufacture would be understood to be either the premises where the actual production occurs, or those commonly used for the storage of the goods produced. But suppose a manufacturer to send goods to a temporary place of deposit in the same town or city with his manufactory, but for storage only, and perhaps for the mere purpose of avoiding the duty imposed by the act; or suppose a manufacturer who, beside disposing of his wares at wholesale, has in the same town or city with his manufactory an establishment where he sells them at retail, to send some of his goods to such retail establishments for sale; would the removal in the one case or the other thus supposed be such a one as is contemplated in the proviso referred to?

I think that in the last case stated it would be so, and that in the former it would not.

But again, suppose a manufacturer never to make sale of his wares at his manufactory, but to have connected therewith in some distant town or city a place of storage and sale to which he has sent goods—or suppose a manufacturer to send to such distant place, merely for storage or to avoid the payment of duty, a portion of his goods—would the removal in either or both of these cases be such as, if occurring before the 1st of September, to exempt the goods from duty? As I have stated, I consider this a ques-

tion not without difficulty, but I incline to the opinion that in both cases the removal must, under ordinary circumstances, be held to be complete.

I am of opinion that it would be too wide a latitude of construction to consider a storehouse in a distant town or city as, under ordinary circumstances, embraced within the description of "the place of manufacture." What I have written will indicate my views as clearly as I am prepared to state them upon the first two inquiries propounded.

As to the last inquiry, I have to say that, beside the seeming impropriety of adopting a construction which would impose a duty upon one class of goods, while another class, equally bound in natural justice to pay duty, should be exempted, I conceive that the proviso under consideration applies as well to articles enumerated in Schedule C, as to those mentioned in section 75; the proviso is general, and applies to all articles upon which a duty is imposed by the act. The burdens imposed upon the articles mentioned in Schedule C are not the less "duties" that they are imposed by way of requiring the articles to be "stamped." I am, therefore, of opinion that the same rule must apply to the articles enumerated in Schedule C as applies to those mentioned in section 75.

With high respect,

EDWARD JORDAN, *Solicitor*.

LEGAL TENDER NOTES IN CHICAGO WITHOUT THE TREASURY DEPARTMENT STAMP.

The Chicago *Tribune* of September 2d contains the extraordinary statement that there are legal tender notes in that city circulating without the government stamp affixed to them, as it professes to be on all genuine notes. The Secretary of the Treasury says "possibly they are genuine." The following is the statement by the *Tribune*:

There are quite a number of Treasury notes in circulation without the red stamp. There being some doubt as to the validity of these notes, a dispatch of inquiry was sent to Secretary CHASE, to which the following reply has been received:

Washington, Sept. 1.

A. MAYER, *Sherman House*:

No notes are valid without the seal. Possibly they are genuine, however; and if so, they will be redeemed as mutilated notes.

(Signed)

S. P. CHASE.

THE DUTY ON CHAIN CABLES AND OTHER ARTICLES.

The Secretary of the Treasury, on appeal, has affirmed the decision of Collector BARNER, imposing, under the act of March 2, 1861, duty at the rate of two cents per pound on merchandise claimed by the importers as chain cables, made of wire or rods less than one-half of one inch in diameter. To this it is interposed that, in commercial usage and parlance in this country and England, there are no chains known as chain cables made of wire or rods of less than one-half of one inch in diameter. It is also affirmed that Orange mineral was properly assessed at \$2 25 per hundred pounds. It is not provided for by name in the law, but is used for the same general purposes as red lead; and that compositions of glass for jewelers' use, being a "manufacture of glass, or of which glass is a component material," is subject to a duty of 80 per cent ad valorem.

FOREIGN BONDHOLDERS AND THE TAX BILL.

The following correspondence is of great interest to foreign holders of bonds of the United States :

New York, Aug. 28.

SIR : In behalf of many foreign holders of American securities we solicit the favor of replies to the following queries :

Under the United States Tax Bill, soon to go into effect, what tax will foreigners resident abroad have to pay from :

First, The interest on United States loans ?

Second, The interest on state and city loans ?

Third, The interest on railway bonds ?

Fourth, The dividends on shares in railway, gas, and other corporations ?

Fifth, In what manner and by whom will such taxes be collected ?

We desire to make known to our correspondents abroad, as soon as possible, not our own but an authoritative interpretation of the law.

This you will please accept as our apology for thus trespassing upon your time.

We have the honor to be, sir,

Your obedient servants,

(Signed)

BARCLAY & LIVINGSTON.

To Hon. S. P. CHASE, *Secretary of the Treasury, &c., Washington, D. C.*

*Treasury Department, Office of Internal Revenue, }
Washington, D. C., Sept. 3, 1862. }*

SIRS : I have the honor to acknowledge the receipt of your letter of the 28th of August.

In reply, permit me to say that whenever coupons are payable in a foreign country, no deduction can be made legally by virtue of our excise laws.

On dividends and coupons payable in this country, the deductions will be made in conformity to the excise law.

In neither case is the residence of the holder to be regarded.

Your obedient servant,

GEO. S. BOUTWELL,
Commissioner.

Messrs. BARCLAY & LIVINGSTON, New York.

PALMYRA ISLAND.—THE KING OF THE HAWAIIAN ISLANDS DISPUTING OUR RIGHT OF POSSESSION.

We take the following from the *Pacific Commercial Advertiser* of Honolulu :

"By the following notice, which was in the last issue of the Government gazette, it appears that Palmyra Island, located nearly a thousand miles distant from this group, has been taken possession of and formally annexed to this kingdom :

"PROCLAMATION.—Whereas, on the fifteenth day of April, 1862, Palmyra Island, in latitude 5° 50' North, and longitude 161° 53' West, was

taken possession of, with the usual formalities, by Captain ZENAS BENT, he being duly authorized to do so, in the name of KAMEHAMEHA IV., King of the Hawaiian Islands. *Therefore*, This is to give notice, that the said island, so taken possession of, is henceforth to be considered and respected as part of the domain of the King of the Hawaiian Islands.

L. KAMEHAMEHA,
Minister of Interior.

Department of the Interior, June 18, 1862.

"The above may all be perfectly legal and strictly in accordance with the law of nations, but our authorities, before they proceed any further, and appoint a governor, with tax collectors, judges, or other officers for their newly-acquired territory, should investigate the title to the claim which is now set up. It appears that formal possession was taken of Palmyra Island, in October, 1859, for the United States Government, by Dr. G. P. JUDD, the agent of the American Guano Company, who visited the island in the brig Josephine. A notice to that effect and the American flag were left on the island. The following is a copy of the notice left there :

"Be it known to all People, that, on the 19th day of October, A.D. 1859, the undersigned, agent of the American Guano Company, landed from the brig Josephine, and having discovered a deposit of guano thereon, doth, on this 20th day of October aforesaid, take formal possession of this island, called "Palmyra," on behalf of the United States, and claim the same for said Company.

(Signed)

G. P. JUDD.
Agent A. G. Co.

Witnesses :

C. H. JUDD,
R. DRYSDALE, M. D.
W. C. STONE.

"York Island was also taken possession of in the same way, and by the same parties. We believe the "United States Guano Company" also claim the same islands, and that a proclamation was issued to that effect from the State Department at Washington, in favor of one of these claimants. It may be argued that right of possession can only hold good so long as the territory claimed is occupied on behalf of the nation claiming it. This is an open question, how far that argument can uphold or destroy the claim. The Hawaiian Government several years ago took possession of several islands to the northwest of this group, and since the proclamation was made there has been no pretension to occupancy, and the islands may remain untenanted for the next fifty years. Now, cannot the American, British, or French Government lay claim to and occupy them, should either government wish to make a naval depot there? It appears to us that they would have the same right to occupy Bird Island that we have to occupy Palmyra. Capt. BENT, in his letter to the Minister of the Interior, makes the following report concerning this island, and no doubt for some purposes it may be worth claiming possession; but if we are to set up a prior claim to the American Government, and are going to hold it *vi et armis*, under the motto that "might makes right," our Secretary of War had better call for a larger appropriation for his department, and order half a dozen "Monitors." Nothing like being prepared for any emergency.

"By correct observation, I found the island to be in latitude $5^{\circ} 50'$ North, and in longitude $161^{\circ} 53'$ West. The island is about ten miles in length and six miles in breadth. The eastern end rises about twenty feet above the level of the sea. The landing is on the west end; and a vessel can lie in perfect safety in three fathoms of water. The trees on the island are cocoanut, puhala, and a species of the koa. All kinds of vegetables will grow on the island. I planted some beans, corn, and watermelons. I erected a dwelling house on the island, and also a curing house for *biche de mer*. I left on the island one white man and four Hawaiians, who are engaged in curing the *biche de mer*."

REGULATIONS FOR TRADE ON THE MISSISSIPPI RIVER.

[ORDER OF GENERAL W. T. SHERMAN.]

Headquarters Fifth Division, }
Memphis, September 8. }

Until trade shall be regularly opened with ports and places on the Mississippi River below Memphis, all commercial intercourse between this city and Helena, and with intermediate points, will be under joint military and civil jurisdiction, and be governed by the following regulations—the object being, while guarding against the conveyance of supplies of whatever description to individuals or bands in armed or other hostility to the government of the United States, not to deny their usual family and plantation supplies to persons who have refused or declined to engage in or otherwise promote the existing rebellion :

1. All permits shall be issued by the Board of Trade in Memphis, and no merchandise which is not so permitted shall be received on board of any steamboat or other vessel or vehicle engaged in the business of common carriers, except army supplies moving under military authority.

2. Merchandise needed for family and plantation supply (not including arms or ammunition) will be permitted by the Board of Trade to persons residing on either side of the Mississippi River between Memphis and Helena, or at Helena or in its neighborhood, who have not taken any active part in the rebellion themselves, or directly or indirectly, by connivance or assent, aided or encouraged those who have. Such supplies, however, must go forward from time to time in limited quantities, and before the delivery of the first the recipient will be required to appear in person at either Memphis or Helena, and make affidavit before a proper officer that no part of the supplies so delivered shall be sold or otherwise disposed of to other parties, or used in any manner or for any purpose whatever except for the consumption of his or her family and plantation laborers.

3. For the purpose of guarding against the abuse of this privilege, and detecting attempts to evade or violate its terms, a list of persons of the character above described, residing or having their plantations within the district of country named, and who have remained at their usual places of residence attending to their legitimate business, will be prepared at as early a period as practicable for the use of the Board of Trade. This list will at all times be subject to revision, that proper names, which at first may be omitted, may be added to it, and improper ones, enrolled through misrepresentation, be erased.

4. For the present and till otherwise provided, all this special transportation will be committed to a single steamboat, to be settled by the Board of Trade, the master of which shall execute bond with reasonable security that he will not deliver any package of merchandise, or any part thereof, at any place other than that for which it shall have been duly permitted. And such boat shall carry and reasonably remunerate a revenue aid, to be appointed subject to the approval of the Secretary of the Treasury, whose scope of duties shall be the same as those of similar officers on boats engaged in the St. Louis and Memphis trade.

5. The bar of this boat, and of all other boats running upon the waters within the district prescribed, shall carry among its stores no intoxicating liquors for sale or barter along the coast, and shall be immediately closed upon arriving at any port or place where the drinking saloons have been closed by either civil or military authority.

6. All lots of cotton, horses, mules, or wagons, shipped north from the lower Mississippi, must be accompanied by the bills of sale, witnessed by at least two witnesses, and duly receipted at the time of delivery to the purchasers.

7. These regulations are at all times subject to change or revocation by the authority that establishes them.

W. T. SHERMAN,

Major-General Commanding 5th Division.

W. D. GALLAGHER, *Special Agent Treasury Department.*

CHICAGO CURRENCY.

There was a report telegraphed from Springfield some days since that large amounts of Illinois currency had been applied for at the auditor's office. The following letter from the auditor to a banker of this city sets the matter right:

Auditor's Office Illinois, Springfield, August 30

DEAR SIR: I am in receipt of your favor of the 29th inst., in which you refer me to certain reports that applications are filed with the auditor for a large amount of Illinois currency. In reply, I would say that all such reports are without foundation. The total amount of currency applied for at this office is less than \$100,000, of which not one half has been issued.

Yours, respectfully,

JAMES K. DUBOIS, *Auditor.*

COMMISSIONS TO PURCHASERS OF STAMPS.

The Commissioner of Internal Revenue has established the following regulation concerning the commissions allowed to purchasers of stamps. The commissions will be paid in stamps, that is, a remittance of \$50 will entitle the purchaser to stamps amounting to \$51. A remittance of \$1,000 will entitle the purchaser to \$1,050 worth of stamps.

DEBENTURE CERTIFICATES.

Collectors of customs at the several ports are instructed to receive in payments of duties all debenture certificates issued by them, the same being made receivable for duties by the act of March 3d, 1849.

STATISTICS OF TRADE AND COMMERCE.

1. COMMERCE OF THE UNITED STATES. 2. PRODUCTION OF BREADSTUFFS. 3. EXPORT OF BREADSTUFFS FROM THE UNITED STATES, 1862. 4. THE NEW MEXICO WOOL TRADE.

COMMERCE OF THE UNITED STATES.

The following detailed statement of the commerce of the United States for the years 1860 and 1861, (compiled from the official reports of the Treasury Department,) contains much interesting matter. In volume 42, page 352, of the *Merchants' Magazine*, will be found the returns for the years 1858 and 1859. The aggregate decrease in exports the past year appears, from these tables, to have been \$145,223,105:

Of this, the decrease in cotton was.....	\$157,755,072
" " tobacco	2,121,837
" " specie.....	33,146,981

Total.....	\$193,023,890
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Leaving out, then, the decrease in these items of cotton and tobacco, (Southern staples, the export of which has been necessarily cut off by the war,) and the decrease in the export of specie, and there will be found to be in all other articles a gain of \$47,800,785. This favorable result, it will be seen, is due entirely to flour, wheat, and corn, which show a gain for the year of \$47,925,319.

QUANTITY AND VALUE OF EXPORTS DURING THE FISCAL YEAR ENDING JUNE 30, 1861.

	1860.		1861.	
Products of the sea.	Quantity.	Value.	Quantity.	Value.
Oil—sperm..... galls.	1,385,736	\$1,789,089	1,518,457	\$2,110,823
whale & other fish.	939,972	537,547	1,009,468	581,264
Whalebone..... lbs.	1,068,895	896,293	979,281	736,553
Spermaceti & sp. candles.	157,788	51,829	456,408	143,907
Fish, dried or sm'd.. cwt.	219,628	690,088	219,324	634,941
pickled..... bbls.	38,815	191,634	48,352	244,028
pickled..... kgs.	2,483		2,662	
Total.....		\$4,156,480		\$4,451,515
Product of the forest.				
Staves and headings.. M.	75,800	\$2,865,516	73,408	\$1,959,393
Shingles..... M.	41,601	169,646	30,078	108,610
Boards, planks, &c.. M. ft.	170,922	2,777,919	182,882	2,092,949
Hewn timber..... tons	32,376	231,668	8,821	97,875
Other lumber.....	.....	706,119	....	441,979
Oak bark and other dye.	.....	164,260	....	189,476
Manufactures of wood...	.....	2,708,095	....	2,344,079
Tar and pitch..... bbls.	60,623	151,404	55,057	143,280
Rosin and turpentine....	770,652	1,818,288	536,207	1,060,257
Ashes, pots & pearls. cwt.	271,949	822,820	99,701	651,547
Ginseng..... lbs.	395,909	296,766	347,577	292,899
Skins and furs.....	.....	1,538,208	.....	878,466
Total.....		\$13,738,559		\$10,260,809

Product of agriculture.	1860.		1861.	
	Quantity.	Value.	Quantity.	Value.
Of animals—				
Beef.....tcs.	78,674 }	\$2,674,324	41,882 }	\$1,675,773
".....bbbl.	76,283 }		65,468 }	
Tallow.....lbs.	15,269,585	1,598,176	29,718,864	2,942,370
Hides.....	.....	1,086,260	.....	678,818
Horned cattle.....No.	27,501	1,052,426	8,885	222,246
Butter.....lbs.	7,640,914	1,144,821	15,581,881	2,355,985
Cheese.....	15,515,799	1,565,630	32,861,428	3,321,631
Pork.....tcs.	1,616 }	3,132,813	1,682 }	2,609,818
".....bbbl.	202,319 }		153,944 }	
Hams and bacon.....lbs.	25,844,610	2,278,768	50,264,267	4,848,339
Lard.....	40,289,519	4,545,881	47,908,911	4,729,297
Hogs.....No.	48,355	377,604	463	3,267
Horses.....	1,635	233,868	1,469	198,420
Mules.....	1,485	158,080	1,799	191,873
Sheep.....	.....	83,618	.....	28,417
Wool.....lbs.	1,055,928	389,512	847,301	237,846
Total.....		\$20,215,226		\$24,085,100
Vegetable food.				
Wheat.....bush.	4,155,153	\$4,076,704	31,238,057	\$38,313,524
Flour.....bbbl.	2,611,596	15,448,507	4,323,726	24,646,349
Indian corn.....bush.	3,814,155	2,399,808	10,678,244	6,890,865
Corn meal.....bbbl.	283,709	912,075	203,313	692,003
Rye meal.....	11,432	48,172	14,143	55,761
Rye, oats, &c.....	.....	1,058,304	.....	1,124,556
Biscuit.....	119,236 }	478,740	110,690 }	429,708
".....kegs and boxes	46,543 }		36,847 }	
Potatoes.....bush.	380,372	284,673	413,091	285,508
Onions.....	.....	109,861	.....	102,578
Apples.....bbbl.	78,809	206,055	112,523	269,363
Rice.....tcs.	84,163 }	2,567,399	89,162 }	1,382,178
".....bbbl.	77,837 }		50,038 }	
Total.....		\$27,590,298		\$74,191,993
Cotton, Sea Island...lbs.	15,598,698 }	\$191,806,555	6,170,321 }	\$34,051,433
" other.....	1,752,087,640 }		301,345,778 }	
Tobacco, unmanuf'd.bbbl.	167,274 }	15,906,547	160,816 }	13,784,710
".....cases	15,085 }		18,815 }	
".....bales	17,817 }		19,450 }	
Flaxseed.....bush.	2,715	3,810	28,540	49,609
Cloverseed.....	116,574	596,919	200,417	1,063,141
Hemp.....tons	186	9,531	136	8,608
Brown sugar.....lbs.	1,133,986	103,244	3,275,024	301,329
Hops.....	273,257	32,866	3,835,837	2,006,058
Total.....		\$256,264,996		\$149,492,026
Manufactures.				
Wax.....lbs.	862,474	\$131,803	270,425	\$94,495
Refined sugar.....	3,332,045	301,674	3,236,110	287,881
Chocolate.....	17,194	2,593	9,908	2,157
Spirits (from grain).galla.	748,135	311,595	2,994,181	867,954
" (from molasses)...	2,855,952	530,644	2,885,869	850,546
" (from other matrl's)	494,643	219,199	1,362,414	593,185
Molasses.....	70,489	85,292	91,593	29,138
Vinegar.....	340,257	41,368	315,994	38,262
Beer, ale, porter, & cider.	160,887	31,371	136,032	25,876
".....doz. bottles	13,043	22,202	7,477	13,604

	1860.		1861.	
	Quantity.	Value.	Quantity.	Value.
Linseed oil .....galls.	87,809	\$26,799	42,638	\$27,982
Spirits of turpentine....	4,072,023	1,916,289	2,941,855	1,192,787
Household furniture....	.....	1,079,114	.....	838,049
Carriages, cars, &c.....	.....	816,973	.....	472,080
Hats .....	.....	211,602	.....	156,956
Saddlery .....	.....	71,382	.....	61,469
Candles, adamantine.lbs.	4,875,552	708,699	4,569,259	683,048
Soap	6,852,485	494,405	7,202,130	455,648
Snuff.....	89,923	11,354	81,465	17,703
Tobacco manufactured..	17,697,309	3,372,074	17,788,363	2,742,828
Leather	2,946,633	674,809	2,714,466	555,203
Boots and shoes....pairs	678,136	782,525	655,808	779,876
Cables and cordage...cwt.	26,053	246,572	28,422	255,274
Gunpowder.....lbs.	3,276,411	467,772	2,319,641	347,103
Salt	475,445	129,717	537,401	144,046
Lead.....lbs.	903,468	50,446	103,023	6,241
Iron, pig	7,097	19,143	14,056	25,826
“ bar.....	5,901	38,257	6,941	15,411
“ nails.....lbs.	5,007,694	188,784	5,354,536	270,084
“ castings.....cwt.	55,726	282,348	26,400	76,750
“ other manufact's of.	....	5,174,040	....	5,536,576
Copper, brass, &c.....	....	1,664,122	....	2,375,629
Medical drugs .....	....	1,115,455	....	1,149,433
Oottons, printed & colored	...	3,356,449	....	2,215,082
“ white other than	....	....	....	....
“ duck .....	....	1,408,506	....	1,076,959
“ duck.....	....	882,089	....	300,668
“ other manufact's	....	5,192,752	....	4,384,879
Hemp thread.....	....	430	....	80
Hemp bags, &c....	....	27,384	....	39,490
Wearing apparel.....	....	525,175	....	462,554
Earthenware, &c.....	....	65,086	....	40,524
Combs and buttons....	....	23,345	....	32,792
Brushes and brooms ...	....	61,377	....	62,360
Billiard apparatus.....	....	15,979	....	8,910
Umbrellas and parasols..	....	4,862	....	1,271
Morocco, &c.....	....	19,011	....	7,507
Fire engines.....	....	9,948	....	7,940
Printing materials.....	....	167,124	....	106,562
Musical instruments ....	....	129,653	....	150,974
Books and maps .....	....	278,268	....	260,365
Stationery .....	....	285,798	....	347,915
Paints and varnish ....	....	223,809	....	240,923
Glassware .....	....	227,948	....	391,781
Tinware .....	....	39,064	....	30,229
Manuf's of pewter & lead	....	46,081	....	30,534
Marble and stone. ....	....	176,239	....	185,267
India rubber boots and	....	....	....	....
shoes.....pairs	107,693	58,826	62,729	33,603
“ other manufact's of	....	182,015	....	160,088
Gold and silver leaf....	....	140,187	....	53,372
Jewelry, &c.....	....	24,659	....	48,740
Artificial flowers.....	....	207	....	1,459
Trunks and valises.....	....	50,184	....	40,622
Lard oil .....galls.	60,209	55,783	85,676	81,783
Oil cake .....	....	1,699,328	....	1,886,691
Bricks, lime, and cement.	....	154,045	....	93,292
Unenumerated manufac's	....	2,397,445	....	2,530,689
Total manufactures.		\$39,544,398		\$35,786,804

	1860.		1861.	
	Quantity.	Value.	Quantity.	Value.
Coal.....tons	187,059	\$740,788	158,171	\$577,386
Ice.....	49,153	188,184	44,753	172,268
Quicksilver.....	....	258,682	....	631,450
Gold and silver bullion..	....	80,913,173	....	18,811,280
Gold and silver coin....	....	26,083,678	....	10,488,590
Raw produce not specified	....	1,855,891	....	2,794,046
Total.....		\$878,189,274		\$227,966,169

RECAPITULATION—EXPORTS.

	1860.	1861.		1860.	1861.
Products of sea.	\$4,156,480	\$4,451,515	Ice.....	\$183,134	\$172,268
“ of forest.	13,788,559	10,260,809	Quicksilver....	258,682	631,450
Of animals....	20,215,228	24,085,100	Gold, silver, bul-		
Vegetable food.	27,590,298	74,291,993	lion.....	80,913,173	18,811,280
Cotton.....	191,806,555	34,051,488	Gold coin.....	26,083,678	10,488,590
Tobacco.....	15,906,547	18,784,710	Not specified..	1,855,891	2,794,046
Other articles..	746,370	8,428,740			
Manufactures...	39,541,898	35,786,804	Total.....	373,189,274	227,966,169
Coal.....	740,783	577,886			

The following tables give, in a compact form, the number and class of vessels built, and the tonnage thereof; also, the total exports and imports, for the year:

STATEMENT OF THE NUMBER AND CLASS OF VESSELS BUILT, ETC.

	Class of vessels.						Tonnage. Tons and 95ths.
	Ships and barks.	Brigs.	Schooners.	Sloops and canal boats.	Steam- era.	Total.	
Maine.....	50	22	54	1	4	161	57,343 79
New Hampshire.....	5	..	5	.	.	10	4,602 48
Vermont.....	.	..	1	.	.	1	49 18
Massachusetts.....	37	2	54	2	6	101	37,206 45
Rhode Island.....	.	1	2	.	1	4	539 11
Connecticut.....	2	1	13	11	8	30	4,985 79
New York.....	2	.	37	205	50	294	46,369 25
New Jersey.....	1	.	25	10	6	42	5,909 07
Pennsylvania.....	2	3	19	91	58	173	24,754 79
Delaware.....	.	.	7	1	6	14	2,932 21
Maryland.....	5	9	33	1	1	49	8,800 91
District of Columbia.....	.	.	.	23	.	23	1,423 22
Virginia.....	1	.	2	6	18	27	3,297 17
North Carolina.....	.	.	8	2	.	10	515 42
South Carolina.....	.	.	1	.	.	1	57 37
Florida.....	.	.	2	.	.	2	157 26
Alabama.....	.	.	1	1	3	5	651 86
Mississippi.....	.	.	5	.	2	7	1,086 06
Tennessee.....	.	.	.	.	1	1	52 40
Kentucky.....	.	.	.	.	33	33	9,717 29
Missouri.....	.	.	.	.	11	11	3,289 27
Illinois.....	.	.	2	.	2	4	1,537 20
Ohio.....	3	.	9	5	37	54	9,180 86
Wisconsin.....	2	.	1	.	.	3	1,269 03
Michigan.....	.	.	10	4	9	23	2,689 79
California.....	.	.	40	2	7	49	4,715 71
Minnesota.....	.	.	..	5	6	11	570 86
Total.....	110	38	360	371	264	1,143	233,194 35

COMMERCE OF THE UNITED STATES—EXHIBITING THE VALUE OF EXPORTS TO AND IMPORTS FROM EACH FOREIGN COUNTRY, AND
THE TONNAGE OF AMERICAN AND FOREIGN VESSELS ARRIVING FROM AND DEPARTING TO EACH FOREIGN COUNTRY DURING
THE FISCAL YEAR ENDING JUNE 30, 1861.

COUNTRIES.

	EXPORTS.		IMPORTS.		AMERICAN TONNAGE.		FOREIGN TONNAGE.	
	Domestic.	Foreign.	Total.		Entered U. S.	Cleared U. S.	Entered U. S.	Cleared U. S.
Russia on the Baltic and North Sea.	\$598,170	\$70,931	\$669,101	\$1,987,959	8,990	5,699	773	946
Asiaic Russia.	156,406	16,339	172,747	6,712	.....	1,063	.....	946
Russian Possessions in North America.	16,884	2,445	19,329	17,005	.....	1,616	.....	2,966
Prussia.	.....	6,783	16,112	37,879	.....	360	400	690
Sweden and Norway.	87,388	9,609	96,997	645,241	7,187	338	6,143	890
Swedish West Indies.	50,116	181	50,297	18,280	1,544	861	140	.....
Denmark.	10,478	.....	10,478	6,441	1,373	.....	.....	180
Danish West Indies.	901,633	48,695	950,328	259,564	10,411	21,447	3,105	3,516
Hamburg.	2,410,420	1,125,373	3,535,793	7,371,473	8,159	1,966	62,979	57,233
Bremen.	6,872,368	1,188,065	8,060,433	8,070,516	5,189	13,491	98,036	101,459
Other German ports.	6,224	.....	6,224	.....	.....	.....	.....	714
Holland.	8,254,141	465,233	8,719,373	2,811,384	52,639	33,483	14,388	19,968
Dutch West Indies.	434,966	15,918	450,884	489,496	16,069	7,041	11,264	1,808
Dutch Guiana.	378,947	13,371	392,318	598,966	6,235	7,171	868	518
Dutch East Indies.	194,493	61,577	256,070	1,045,791	5,447	7,788	9,570	887
Belgium.	1,981,899	888,193	2,870,092	9,371,998	18,000	25,071	6,495	4,991
England.	102,799,668	3,600,745	106,400,413	186,032,009	892,696	640,085	479,068	468,798
Scotland.	6,898,169	146,863	7,045,032	59,779	31,158	50,779	54,724	88,174
Ireland.	7,448,098	203,361	7,651,459	9,948,524	1,198	58,733	54,998	130,781
Gibraltar.	558,557	52,778	611,335	190,834	.....	.....	1,991	1,918
Malta.	176,637	6,007	182,644	58,346	.....	.....	.....	.....
Canada.	11,749,931	9,611,877	21,361,808	70,576	1,358	1,749	.....	986
Other British North American Possessions.	7,133,724	1,350,081	8,483,805	18,645,437	1,996,893	9,085,670	694,879	731,133
British West Indies.	5,330,914	185,193	5,516,107	196,709	507,173	463,141	463,141	500,938
British Honduras.	237,776	19,601	257,377	1,993,579	58,168	95,943	48,726	30,549
British Columbia.	1,031,645	6,978	1,038,623	245,597	.....	2,990	644	1,389
Other British Possessions in South America.	493,647	8,040	501,687	109,359	4,593	19,333	5,109	5,747
British Possessions in Africa.	3,410,569	30,476	3,441,045	1,484,174	10,965	9,196	1,137	1,864
British Australia.	664,511	25,390	689,901	199,324	4,078	27,423	6,005	10,469
British East Indies.	91,704,940	1,629,247	93,334,187	8,745,768	64,359	15,468	10,323	7,091
France on the Atlantic.	1,061,009	43,486	1,104,495	20,989,674	174,787	169,694	16,935	7,640
France on the Mediterranean.	28,645	84,382	113,027	3,916,975	14,976	27,485	5,299	1,116
French North American Possessions.	453,467	64,382	517,849	117,148	.....	.....	5,465	4,610
French West Indies.	184,568	4,008	188,576	8,459	1,137	15,516	1,459	2,568
French Guiana.	.....	.....	.....	21,598	1,509	2,764	.....	168

PRODUCTION OF BREADSTUFFS.

In connection with the annual statement of the export of breadstuffs, which will be found on page 355, the following from the census report will be of considerable interest:

WHEAT, RYE, AND CORN PRODUCED IN THE UNITED STATES IN 1860.

States.	Wheat.	Rye.	Corn.
California..... bushels	3,946,600	51,000	524,800
Connecticut.....	52,400	618,700	2,059,800
Delaware.....	913,000	27,200	3,892,400
Illinois.....	24,159,500	981,300	115,296,800
Indiana.....	15,209,100	400,200	69,641,800
Iowa.....	8,433,200	176,000	41,117,000
Kansas.....	168,500	3,900	5,678,800
Kentucky.....	7,394,800	1,055,300	64,043,600
Maine.....	233,900	128,300	1,546,000
Maryland.....	6,103,500	509,000	13,445,000
Massachusetts.....	119,800	388,000	2,157,000
Michigan.....	8,313,200	494,200	12,152,100
Minnesota.....	2,195,800	124,300	2,987,600
Missouri.....	4,227,600	293,300	72,892,200
New Hampshire.....	269,000	128,300	1,414,700
New Jersey.....	1,763,100	1,390,500	9,723,300
New York.....	8,681,100	4,787,000	20,061,000
Ohio.....	14,532,600	656,100	70,637,100
Oregon.....	822,400	2,700	74,600
Pennsylvania.....	13,045,200	5,474,800	28,196,800
Rhode Island.....	1,100	28,300	459,000
Vermont.....	431,100	131,000	7,463,000
Wisconsin.....	15,812,600	888,500	7,565,300
Territories.....	1,007,400	11,200	2,757,200
Total.....	139,816,500	18,803,100	549,786,700
Seceding States.	Wheat.	Rye.	Corn.
Alabama.....	1,222,500	74,000	32,761,200
Arkansas.....	955,300	77,900	17,058,700
Florida.....	2,800	21,300	2,824,500
Georgia.....	2,545,000	115,600	30,776,300
Louisiana.....	29,300	12,800	16,105,900
Mississippi.....	579,500	41,300	29,563,700
North Carolina.....	4,743,700	436,800	30,078,600
South Carolina.....	1,285,600	89,100	15,065,600
Virginia.....	13,129,100	944,000	38,360,700
Tennessee.....	5,409,900	265,300	50,748,300
Texas.....	1,464,300	95,000	16,521,600
Seceding States.....	31,367,000	2,173,100	280,665,100
Other States.....	139,816,500	18,803,100	549,786,700
Total, 1860.....	171,183,500	20,976,200	830,451,800
Total, 1850.....	100,486,000	14,188,800	592,071,000

The relative values of these three products in the loyal and in the seceding States may be represented as follows :

	Wheat at \$1 25.	Rye at 75 cents.	Corn at 50 cents.
Loyal States.....	\$174,770,000	\$14,103,000	\$274,893,000
Seceding States.....	39,209,000	1,630,000	140,332,000
Total, 1860.....	\$213,979,000	\$15,733,000	\$415,225,000
Total, 1850.....	125,607,000	10,641,600	296,035,000

From this official return it would appear that New York, which was in 1830-40 one of the leading wheat producing states, has now become the seventh, and is about on a parallel with Michigan in the article of wheat.

The relative position of this State as a wheat producer, since 1840, is shown in the annexed summary of all the States producing over five million bushels each :

WHEAT PRODUCING STATES, 1840-1860.

	1840.	1850.	1860.
Illinois.....bushels	3,335,400	9,414,600	24,159,500
Indiana	4,049,400	6,214,400	15,219,100
Wisconsin.....	212,100	4,286,100	15,812,600
Ohio.....	16,571,600	14,487,300	14,532,600
Virginia.....	10,109,700	11,212,600	13,129,100
Pennsylvania.....	13,213,000	15,367,700	13,045,200
New York.....	12,286,400	13,120,500	8,681,100
Michigan.....	2,157,100	4,925,800	8,313,200
Iowa.....	151,700	1,530,500	8,433,200
Kentucky.....	4,803,100	2,142,800	7,294,800
Maryland.....	3,345,700	4,494,600	6,103,500
California.....	.....	17,200	5,946,600
Tennessee.....	4,569,700	1,619,400	5,409,900
Thirteen States.....	74,804,900	88,834,500	146,180,400
All others	13,708,300	11,651,300	25,003,100
Bushels of wheat.....	88,513,200	100,485,800	171,183,500

EXPORT OF BREADSTUFFS FROM THE UNITED STATES, 1862.

We give below the annual summary of the exports of breadstuffs from the United States, prepared by Mr. EDWARD BILL. The statement for the year 1861 will be found on page 484, vol. 45, of the *Merchants' Magazine* :

EXPORT OF BREADSTUFFS TO GREAT BRITAIN AND IRELAND,

From September 1, 1861, to September 1, 1862.

From	Flour, barrels.	Corn meal, barrels.	Wheat, bushels.	Corn, bushels.
New York....	1,883,134	718	21,268,961	12,635,762
Philadelphia...	361,619	406	2,386,599	785,566
Baltimore....	75,732	....	468,772	656,724
Boston.....	285,705	....	38,850	49,516
Other ports...	66,325	....	1,591,527	6,600

EXPORT OF BREADSTUFFS TO GREAT BRITAIN AND IRELAND FROM 1846 TO 1861 INCLUSIVE.

	Flour, barrels.	Wheat, bushels.	Corn, bushels.	Rye, bushels.
1861.....	2,672,215	1,124	25,754,709	14,084,168
1860.....	2,561,661	4,416	25,553,370	11,705,034
1859.....	717,156	944	4,938,714	2,221,857
1858.....	106,457	58	439,010	342,013
1857.....	1,295,430	143	6,555,643	3,317,802
1856.....	849,600	685	7,479,401	4,746,278
1855.....	1,641,265	6,816	7,956,406	6,731,161
1854.....	175,209	4,768	324,427	6,679,138
1853.....	1,846,920	41,726	6,038,003	6,049,371
1852.....	1,600,449	100	4,823,519	1,425,278
1851.....	1,427,442	1,680	2,728,442	1,487,398
1850.....	1,559,584	5,620	1,496,354	2,205,601
1849.....	574,757	6,411	461,276	4,753,358
1848.....	1,137,556	82,900	1,140,194	12,685,260
1847.....	182,583	108,534	241,300	4,390,226
1846.....	3,155,845	844,188	4,000,359	17,157,659
Total, 16 years	21,504,429	1,110,112	99,931,137	99,981,602

TO THE CONTINENT, FROM NEW YORK AND OTHER PORTS.

	Flour, barrels.	Wheat, bushels.	Corn, bushels.	Rye, bushels.
1861.....	626,672	7,617,472	322,074	1,612,926
1860.....	142,129	3,452,496	101,145	347,258
1859.....	49,243	178,031	19,358	.....
1858.....	51,388	57,845	25,519	.....
1857.....	303,100	390,428	16,848	13,100
1856.....	483,344	2,875,653	543,590	216,162
1855.....	748,408	2,610,079	282,083	1,975,178
1854.....	7,763	4,972	308,428	35,569
Total, 8 years.	2,412,047	17,186,976	1,619,045	4,200,193

FROM CANADA TO GREAT BRITAIN AND IRELAND, VIA ST. LAWRENCE.

	1861-1862.		1861-1862.
Flour.....bbls.	617,308	Oats.....bush.	780,756
Peas.....bush.	822,060	Corn.....	2,016,040
Wheat.....	6,376,905	Oat meal.....bbls.	7,242

THE NEW MEXICO WOOL TRADE.

We take the following from the *Kansas City Daily Press* of August 29. In days when wool, in our Eastern markets, appears to command whatever price the seller sees fit to ask, such facts as these become doubly interesting. On page 28, vol. 46, of the *Merchants' Magazine*, in the article entitled "Commerce of the Prairies," will be found some interesting statements respecting this trade:

"The extent of the trade in wool between this city and New Mexico is much greater than is supposed even by our own citizens. We have been so accustomed to look upon the New Mexican as a mere shipping and transfer business, that we hardly can realize the fact that the actual buying and selling, the supplying of the Santa Fé merchants with merchandise and manufactured articles of all kinds, is a branch of business, whose importance and value is not exceeded by all the balance of the trade of the city this year.

"It was formerly the case that the Mexican trains came in empty, the merchants bringing nothing but gold to exchange for goods. Every train comes in loaded with wool, hides, sheepskins, &c., &c., which are taken by our merchants either on consignment, or are purchased by our dealers for the eastern markets.

"The most important article brought in from Santa Fé is wool, and the quantity is increasing every year. We have taken considerable trouble to find out the exact amount received this year, and after personal conference with the four firms of C. E. KEARNEY, D. V. WHITING, W. H. CHICK & Co., and J. S. CHICK & Co., we have arrived at the following facts:

Received up to the present date.....lbs.	687,960
Amount to arrive as per bills of lading already received....	265,000
Total number of pounds.....	952,960

"In 1857, which was considered the most prosperous year Kansas City had ever experienced, the amount of wool received up to December 31st, was 865,000 pounds, which was considered an immense amount. It must be remembered, however, that at that time the wool trade was but just commenced, and although everything was favorable a comparatively small amount was received.

"We are confident from all advices, that could our merchants have conscientiously advised the shipping of the full amount of wool intended for this market this year, the quantity would have exceeded three millions of pounds.

"This wool is derived from the immense droves of sheep which dot the great plains of New Mexico, and is worth in this city from fifteen to twenty-five cents per pound, according to quality. It is forwarded to the Eastern markets and sold at an advance of twenty-five to fifty per cent.

"This business is rapidly increasing, and should perfect peace be preserved on this border and on the road to New Mexico, our next years' receipts will be at least double those of the present."

THE COTTON QUESTION.

1. THE COTTON CROP OF 1859-60. 2. COTTON FROM TRINIDAD. 3. A SUBSTITUTE FOR COTTON.
4. ROYAL COMMISSION ON COTTON. 5. AFRICA AS A COTTON FIELD. 6. COTTON CULTIVATION IN INDIA.

THE COTTON CROP OF 1859-60.

WE have received the following communication which sufficiently explains itself:

Mr. Editor: The discrepancy between the official return of the cotton crop, as given in the preliminary report of the 8th census, just issued, and the commercial statistics, is only apparent and is easily reconciled.

In 1850 the assistant marshals were instructed to ascertain the number of bales produced of 400 pounds each, and for the purpose of comparison the same standard was used in 1860, notwithstanding the fact that there was a gradual increase in the size of the bale. The average weight for the last seven years has increased from 437 pounds to 458 pounds—450 may therefore be considered a fair standard.

The product of 1860, 5,198,077 bales of 400 lbs. each, is 2,079,230,800 lbs. Is equal to..... 4,620,513 " 450 "

The *Shipping Gazette* gives the crop of that year as 4,675,770 bales, or 55,257 more than the official returns; an excess of less than one-fourth per centum.

The accuracy of the commercial statement is verified by the following figures:

	Pounds.	Bales.
Consumed in cotton mills.....	464,035,125	
" in woolen "	16,008,625	
" in household manufactures and in the arts.....	32,796,502	
	412,841,250	863,425
Exported.....		3,812,345
Crop of 1859-60.....		4,675,770
Washington, D. C.	Yours, &c.	

COTTON FROM TRINIDAD.

The British Monarch has arrived at Bristol, with a small quantity of cotton grown in Trinidad. The importation is the result of a speculative trial, the report on which is that cotton may be cultivated profitably and successfully in Trinidad. The parcel is stated to be the cleanest that has yet been received from the West Indies.

A SUBSTITUTE FOR COTTON.

On the 28th of August a communication was published in the London *Times* from the legal firm of PHILLIPS & SON, of Abchurch Lane, London, stating on behalf of a client, that a material had been discovered as a substitute for American cotton, which possesses not only all the qualities of that staple, but is capable of being produced in any quantity and at a small expense. Of course such an announcement was received with distrust, and most persons of full experience must continue to view the matter with the same feeling, until they have seen the article in question submitted to an actual working test. But in the *Times* of September 8th, we find the following on the same subject, which leads us to feel that possibly this discovery will not share the fate of the multitude of others that in times of emergency are suddenly broached, but which, when they come to an actual working test, are found to break down in some essential point, either of quality, quantity, or price. The *Times* says "that the proper and prudent steps taken by the parties concerned, have already elicited the subjoined expression of opinion from a disinterested and competent source, which will at all events tend greatly to stimulate the interest awakened and also the hope of some favorable result:

SIR: Having been in the cotton trade all my life, though now retired and only a looker on, but still taking great interest in all that concerns it, I read Messrs. PHILLIPS & SON's letter in your money article of this day week, and your remarks.

I wrote to Messrs. PHILLIPS the same evening, and have since had two interviews with them and their client, in Liverpool.

I have seen the material proposed as a substitute for cotton in several small specimens, and can speak to its color, length, and fineness being all that can be desired.

The other quality necessary, viz.: strength, I can only speak of by what was stated, that it is as strong, or stronger than cotton, that it can be supplied in large quantity, and at a price as low or lower than the average price of cotton, which I told them was about 6d. per pound.

I have stated simply what I have seen and heard.

And further, both Mr. PHILLIPS and his friend are so straightforward, and even modest in what they say and propose, as to a still more thorough investigation of the subject, the profound gravity of which is apparent to every one, that I write this in the hope to promote that object. I am, most respectfully,

JAMES HARDY WRIGLEY,

Late of the firm of JOHN WRIGLEY & SONS, Liverpool.

September 3d.

"A further communication on the subject has been received from Messrs. PHILLIPS & SON, in which they state the readiness of their client on certain moderate terms to make his invention public, so as to save the trade of the country from the time that would be lost in the preliminaries of a patent:

SIR: We shall be glad if you will allow us to state that the insertion of our letter respecting the supply of cotton, in the *Times* of the 28th

of August, has been responded to by many gentlemen and eminent firms, and otherwise attended with very gratifying results.

The material produced by our client has been submitted by him to the inspection of Mr. JAMES HARDY WRIGLEY, of Southport, as one of those who responded and a competent authority on the subject, and, so far, the expectations entertained of the article are completely confirmed.

To finally establish, however, its practical value, and render it available in the promptest manner, our client has addressed to Mr. WRIGLEY a communication, of which we send you the accompanying copy, in which he engages to make his secret public property and states the conditions on which he is prepared to do so.

Our client's views and desires are sufficiently disinterested to make pecuniary reward a consideration of secondary importance under the circumstances, and hence we make no doubt the co-operation required will soon be secured, and shall be glad to receive communications from those willing to afford it in the way proposed.

Your very obedient servants,

PHILLIPS & SON.

ABCHURCH LANE, *September 5th.*

September, 1862.

SIR: Since your first letter was to hand I have received some very advantageous offers of assistance from various parties, but it has occurred to me that a considerable period must elapse before the completion of my patent, and, consequently, before I should be able openly to manufacture the raw material, the season would be rapidly passing away; neither should I be able to produce a sufficient quantity for present purposes; nor could the granting of licenses take effect for some time.

All this would be obviated if every manufacturer were able to procure the article without delay, and, as the present is no ordinary emergency and requires no common sacrifice, I beg to state that I am willing to make my invention public property upon certain conditions which are herewith sent.

If the conditions are not deemed satisfactory, I am prepared to consider any modification of them.

You are at liberty to make this letter public, together with the conditions, if you deem such a course desirable.

Being actively engaged in the city, I do not wish my name to be published at the present time, as I should be inundated with letters and inquiries. All communications may be addressed to Messrs. PHILLIPS & SON.

Your most obedient servant,

THE INVENTOR.

J. H. WRIGLEY, Esq., Southport.

CONDITIONS.

1. That a committee of not less than ten responsible gentlemen be formed, who will guaranty to raise a sum of £—, and who will undertake to use all reasonable means to procure a further sum by subscription or otherwise to the inventor. The amount to be specially agreed upon.

2. That on such committee being formed, and consenting to act, the

inventor will submit the cotton produced to such person or persons as may be agreed upon, for the purpose of being tested and analyzed.

3. That the inventor shall be present at all experiments made.

4. That the success shall be determined on the report of the person or persons deputed to test and analyze that the product will answer all the purposes of cotton, or is better than cotton, and that an adequate and immediate supply can be obtained.

5. The inventor reserves to himself all the patent rights for the exclusive use, &c., of the product, or the article or thing from which it is produced for other purposes than textile fabrics.

In the *Times* of the 12th instant we find another article on this same general subject of substitutes for cotton, referring, however, not to the discovery claimed above, but to a method of treating jute which will enable it to be spun on cotton machinery, &c. The writer says:

"Excitement continues to increase in the market for the various products to which attention has been turned. Owing to the scarcity of cotton and flax, hemp and jute have all experienced a further advance to-day. In jute the improvement has lately been extraordinary, the present quotation showing a rise of £8 per ton, or more than 25 per cent upon that current a week back. The movement appears to have been greatly accelerated to-day by a statement that Messrs. THOMSON & Co., of Deasfield works, Dundee, have introduced a method for its treatment which will enable it to be spun on cotton machinery, and, in fact, to fulfill in a great degree the purposes of that staple. At the same time there are a number of other people putting forth suggestions and claims, and a certain kind of Italian grass is spoken of as a desirable product. Should jute, however, prove really available to the extent anticipated by Messrs. THOMSON, it will be likely to take the lead of all other articles owing to the great abundance in which it can be obtained. About ten or fifteen years ago it was scarcely known as an article of commerce, but the quantity now annually exported from India is thought to be 70,000 or 80,000 tons. It comes principally from the eastern parts of Bengal, and is very easy to cultivate. The first purpose to which it was applied on a large scale was the manufacture of gunny bags, and subsequently it has been introduced for the manufacture of carpets, which have been used in considerable quantities in America. A year would be required before a new crop could be supplied, but it could then be furnished to meet any possible demand."

On the following day the same writer says:

"The number of applicants yesterday at the counting-house of Messrs. ROBINSON & FLEMING to inspect the samples of prepared jute under the patent of THOMSON & Co., of Dundee, was very great. Those among them who are woollen spinners are stated generally to have expressed a decided opinion as to the value and adaptability of the material for mixing with woollen manufactures. The cotton spinners also seemed disposed to consider that it will answer very well for mixing with cotton in the manufacture of cloths, although not for use alone as an entire substitute for cotton. It is stated that the quantity of jute now afloat for London

is 4,342 tons against 5,157 at the corresponding period of last year. And to Liverpool, 3,250 tons against 2,456, so that the aggregate is almost exactly the same as at this period.

"The rise on jute since 3d instant, exceeds 50 per cent."

ROYAL COMMISSION ON COTTON.

At a meeting of the directors of the Glasgow Chamber of Commerce last week, the following memorial to Lord PALMERSTON, on the subject of the royal commission upon cotton, was adopted :

"That in consequence of the blockade of the Southern ports of the United States of America, which has now existed for more than a year, and the consequent obstruction of the cotton supply, the prosperity of numerous populous districts of this country, in which the manufacture of cotton is carried on, has been most seriously affected, and the distress and suffering now existing in Lancashire and elsewhere is a source of the deepest anxiety and alarm. That from the determination shown by both parties to the contest, there is reason to fear that the civil war in America may be continued for a very considerable period of time, and even when the war shall terminate it seems unreasonable to hope that the Southern States can again, or at least until a considerable period shall have elapsed, resume their supply of cotton to anything like the extent of their former production. That the quantity of cotton required for the consumption of Europe and the Eastern States of America is upwards of 5,000,000 of bales annually, of which the Southern States have been in use to supply 4,000,000 of bales, and that consequently, without extraordinary efforts, it is unreasonable to expect speedy or effectual relief in the unfortunate crisis at which the cotton manufacture would seem to have arrived. That various schemes have been suggested for procuring a supply of cotton, adequate in quantity, and adapted to the requirements of British manufacture, from other portions of the globe, as from India, Australia, the West Indies, Africa, &c., many of which merit careful and impartial consideration. That apart altogether from the existing state of matters in this country, which call so loudly for relief, the possible opening up of a great field of production to our colonies and to our home trade offers a most important subject for investigation. That while the schemes and suggestions above referred to are numerous and important, the want of some qualified and responsible party to consider and report as to their practicability and comparative value is generally felt and expressed. That the appointment of a royal commission appears to the memorialists the most effectual mode for having the whole question of cotton supply—in which the welfare and interests of the country and its dependencies are so intimately bound up—fully and impartially considered, and satisfactorily dealt with. That such an appointment would further be attended with most beneficial results, inasmuch as it would prove to those large classes of the community who are suffering under the existing depression and stagnation of trade, that the causes in which their sufferings have originated were being carefully and authoritatively inquired into, and that the talent and energies of the country were being directed to their alleviation and ultimate removal."

AFRICA AS A COTTON FIELD.

Lord RUSSELL has received the following dispatch from Dr. BAIKIE, in command of the Niger expedition :

BIDA, NUSSE, CENTRAL AFRICA, *February 26, 1862.*

MY LORD: I feel it to be my duty again respectfully to request your lordship to call the attention of those in England interested in the supply of cotton, to the peculiar eligibility of this portion of Central Africa as a future cotton field. Here there are no adverse interests, no speculative political parties to interfere with our wishes, no monopolists nor capitalists to raise prices. Three-fourths of the laboring population, whether free or slave, are at liberty to have their own farms, and to sell the bulk of their own crops. Thus, though the small farmer may himself be a slave, the larger his crops the larger his profits, and in working hard he is not laboring by mere task, or simply for the benefit of his master, but for his own immediate behoof; and thus, though a large part of the population of Bonú and of Nüsse are slaves, the labor on the small farms is not strictly "slave labor." It is from these small farms that most cotton comes to the market, and it is these small farmers whom any demand would stimulate. In Yoruba, more is produced by large traders, and there it has caused an increased demand and price for slaves; but here it would have, if anything, an opposite result, as it would enable many of the present serf population to effect their freedom. I have, in a former dispatch, shown how superior Sudán is, as a field for cotton, to the regions explored by Dr. LIVINGSTONE, alike from the greater proximity and superior navigability of the Niger to the Zambézi, as well as that here cotton is already in abundance, and cultivated by a people able and willing to work, and accustomed to its habits and rearing. Nothing further is required but increased demand, and means to purchase, cleaning, and shipping; the rest would speedily follow. I have, &c.,

(Signed,)

WM. BALFOUR BAIKIE.

COTTON CULTIVATION IN INDIA.

The European *Times* tells us that Mr. MONEY, of Java, had an interview with the directors of the Manchester Chamber of Commerce on the 1st, to offer his suggestions for the cultivation of cotton in India. Mr. MONEY's plan was simply to give the European cotton buyers power to counterbalance the influence of the native money lender by making him government receiver of the land tax, whilst the local European official's interest might be cultivated by giving him a per centage on the receivers' operations. A sub-committee was appointed to consider the suggestions. This Mr. MONEY is the same gentleman who is now contributing to the London *Economist* a series of interesting articles on the cotton supply question.

RAILWAY, CANAL, AND TELEGRAPH STATISTICS.

1. RAILROADS OF THE UNITED STATES—CENSUS REPORT. 2. RAILROADS IN FRANCE IN 1862.
3. THE ATLANTIC TELEGRAPH. 4. NEW TELEGRAPH LINES.

RAILROADS OF THE UNITED STATES—CENSUS REPORT.

THE Census Report gives us a very clear and comprehensive view of the wonderful progress of railroads in the United States during the decade which terminated in 1860:

At its commencement the total extent in operation was 8,588.79 miles, costing \$296,260,128; at its close, 30,598.77 miles, costing \$1,134,452,909; the increase in mileage having been 22,004.08 miles, and in cost of construction \$838,192,781.

While the increase in mileage was nearly 300 per cent, and the amount invested still greater, the consequences that have resulted from these works have been augmented in vastly greater ratio. Up to the commencement of the decade our railroads sustained only an unimportant relation to the internal commerce of the country. Nearly all the lines then in operation were local or isolated works, and neither in extent nor design had begun to be formed into that vast and connected system which, like a web, now covers every portion of our wide domain, enabling each work to contribute to the traffic and value of all, and supplying means of locomotion and a market, almost at his own door, for nearly every citizen of the United States.

Previous to the commencement of the last decade only one line of railroad had been completed between tide-water and the great interior basins of the country, the products of which now perform so important a part in our internal and foreign commerce. Even this line, formed by the several links that now compose the New York Central road, was restricted in the carriage of freight except on the payment of canal tolls, in addition to other charges for transportation, which restriction amounted to a virtual prohibition. The commerce resulting from our railroads consequently has been, with comparatively slight exceptions, a creation of the last decade.

The line next opened, and connecting the Western system of lakes and rivers with tide-water, was that extending from Boston to Ogdensburg, composed of distinct links, the last of which was completed during 1850. The third was the New York and Erie, which was opened on the 22d of April, 1851. The fourth, in geographical order, was the Pennsylvania, which was completed in 1852, although its mountain division was not opened till 1854. Previous to this time its summit was overcome by a series of inclined planes, with stationary engines, constructed by the State. The fifth great line, the Baltimore and Ohio, was opened, in 1853, still further south. The Tennessee River, a tributary of the Mississippi, was reached, in 1850, by the Western and Atlantic Railroad of Georgia, and the Mississippi itself, by the Memphis and Charleston Railroad, in 1859. In the extreme North the Atlantic and St. Lawrence, now known as the Grand Trunk, was completed early in 1853. In 1858, the Virginia system was extended to a con-

nection with the Memphis and Charleston and with the Nashville and Chattanooga railroads.

The eight great works named, connecting the interior with the seaboard, are the trunks or base lines upon which is erected the vast system that now overspreads the whole country. They serve as outlets to the interior for its products, which would have little or no commercial value without improved highways, the cost of transportation over which does not equal one-tenth that over ordinary roads. The works named, assisted by the Erie Canal, now afford ample means for the expeditious and cheap transportation of produce seeking eastern markets, and could, without being overtaxed, transport the entire surplus products of the interior.

Previous to 1850 by far the greater portion of railroads constructed were in the States bordering the Atlantic, and, as before remarked, were for the most part isolated lines, whose limited traffics were altogether local. Up to the date named, the internal commerce of the country was conducted almost entirely through *water* lines, natural and artificial, and over ordinary highways. The period of the settlement of California marks really the commencement of the new era in the physical progress of the United States. The vast quantities of gold it produced imparted new life and activity to every portion of the Union, particularly the Western States, the people of which, at the commencement of 1850, were thoroughly aroused as to the value and importance of railroads. Each presented great facilities for the construction of such works, which promised to be almost equally productive. Enterprises were undertaken and speedily executed, which have literally converted them into a net-work of lines, and secured their advantages to almost every farmer and producer.

The only important line opened in the West, previous to 1850, was the one from Sandusky to Cincinnati, formed by the Mad River and Little Miami roads. But these pioneer works were rude, unsubstantial structures compared with the finished works of the present day, and were employed almost wholly in the transportation of passengers. Within the decade, in place of this one line, railroads have been constructed radiating from lakes Erie and Michigan, striking the Mississippi at *ten* and the Ohio at *eight* different points, and serve as trunk lines between the two great hydrographic systems of the West. These trunk lines are cut every few miles by cross lines, which, in the States east of the Mississippi, are sufficiently numerous to meet every public and private want, and to afford every needful encouragement to the development of the resources of this country.

The Southern States have been behind the Northern in their public enterprises, though, at the date of the census, they were prosecuting them with great energy and vigor. The progress inland of the great trunk lines of the South has been already noted. The opening of the Mobile and Ohio, and of the Mississippi Central, which will soon take place, will give completeness to the system of the Southwestern States, and leave little to be done to make it all that is wanted for that section of the country.

West of the Mississippi less has been done, for the reason that the settlements there are of a more recent date, and the people less able to provide the means for their construction than those of the older States. But even upon our western frontier extensive systems have been undertaken and very considerable progress made in their execution.

A more interesting subject than the progress of our public works would be their results, as shown in the increased commerce and wealth of the

country. But such inquiries do not come within the scope of this report. It is well ascertained, however, that our railroads transport in the aggregate at least 850 tons of merchandise per annum to the mile of road in operation. Such a rate would give 26,000,000 tons as the total annual tonnage of railroads for the whole country. If we estimate the value of this tonnage at \$150 per ton, the aggregate value of the whole would be \$3,900,000,000. Vast as this commerce is, more than three-quarters of it has been created since 1850.

To illustrate the correctness of the estimate made, the following statement is added of the tonnage transported by the railroads of the State of New York for 1860, with the estimated value of the same. The classifications are made by the companies :

Kinds of freight.	Tons carried.	Value per ton.	Total value.
Products of the forest.....	373,424	\$20	\$7,468,480
Products of animals.....	895,519	200	179,103,800
Vegetable food.....	1,103,640	50	55,182,000
Other agricultural products....	143,219	15	2,148,055
Manufactures.....	511,916	250	127,979,000
Merchandise.....	783,811	500	391,905,500
Other articles.....	930,244	10	9,302,440
Total.....	4,741,773	\$163	\$773,089,275

If we make a deduction of one-quarter for duplications—a portion of the tonnage passing over more than one road—the aggregate would be 3,556,330 tons, having a value of \$579,681,790.

The railroads of Massachusetts transported, for the same year, 4,094,369 tons; or, making the deductions for duplications, 3,070,027 tons, and having a value of \$500,524,201. The number of miles of railroad employed in the transportation of freight being 2,569 in the State of New York, and 1,317 in the State of Massachusetts, with the deductions named, the amount of freight transported in these States average 1,700 tons per mile. We have estimated the tonnage of all the railroads of the United States to average one-half the amount of the roads in these States. That this is not an overestimate is shown by the following statement of the tonnage of several interior lines :

	Length of miles.	Tons transported.
Cleveland, Columbus, and Cincinnati.....	141	295,835
Little Miami.....	120	343,961
Cleveland and Toledo.....	147	250,483
Michigan Central.....	282	378,570
Michigan Southern.....	525	398,679
Illinois Central.....	700	496,390
Chicago, Burlington, and Quincy.....	310	538,670
Chicago and Rock Island.....	228	301,668
Galena and Chicago.....	259	381,188
Total.....	2,712	3,386,393

The following tables give the length, cost, &c., of the railroads in the United States in 1850 and 1860 :

TABLE SHOWING THE LENGTH, COST, ETC., OF THE RAILROADS OF THE UNITED STATES.

	Mileage.		Cost of construction, &c.	
	1850.	1860.	1850.	1860.
Maine.....	245.59	472.17	\$6,999,894	\$16,576,385
New Hampshire..	465.32	656.59	14,774,133	23,268,659
Vermont.....	279.57	556.75	10,800,901	23,336,215
Massachusetts ..	1,035.74	1,272.96	47,886,905	58,882,328
Rhode Island...	68.00	107.92	2,802,594	4,318,827
Connecticut.....	413.26	603.00	13,989,774	21,984,100
New England..	2,507.48	3,669.39	\$97,254,201	\$148,366,514
New York.....	1,403.10	2,701.84	\$65,456,123	\$131,320,542
New Jersey	205.93	559.90	9,348,495	28,997,033
Pennsylvania...	822.34	2,542.49	41,683,054	143,471,710
Delaware.....	39.19	136.69	2,281,690	4,351,789
Maryland.....	253.40	380.30	11,580,808	21,387,157
Mid. Atlantic .	2,723.96	6,321.22	\$130,350,170	\$329,528,231
Virginia	515.15	1,771.16	\$12,585,312	\$64,958,807
North Carolina.	248.50	889.42	3,281,623	16,709,793
South Carolina..	289.00	987.97	7,525,981	22,385,287
Georgia.....	643.72	1,404.22	13,272,540	29,057,742
Florida.....	21.00	401.50	210,000	8,628,000
So. Atlantic...	1,717.37	5,454.27	\$36,875,456	\$141,739,629
Alabama.....	132.50	743.16	\$1,946,209	\$17,591,188
Mississippi.....	75.00	872.30	2,020,000	24,100,009
Louisiana	79.50	334.75	1,320,000	12,020,204
Texas.....	....	306.00	.....	11,232,345
Gulf	287.00	2,256.21	\$5,286,209	\$64,943,746
Arkansas .....	....	38.50	.....	\$1,155,000
Tennessee.....	....	1,197.92	.....	29,537,722
Kentucky.....	78.21	569.93	1,830,541	19,068,477
Int., South...	78.21	1,806.35	\$1,830,541	\$49,761,199
Ohio.....	575.27	2,999.45	\$10,684,400	\$111,896,351
Indiana.....	228.00	2,125.90	3,380,533	70,295,148
Michigan.....	342.00	799.30	8,945,749	31,012,399
Illinois.....	110.50	2,867.90	1,440,507	104,944,561
Wisconsin.....	20.00	922.61	612,382	33,555,606
Iowa.....	....	679.77	.....	19,494,633
Missouri.....	....	817.45	.....	42,342,812
Int., North...	1,275.77	11,212.38	\$25,063,571	\$413,541,510
California.....	.....	70.05	.....	\$3,600,000
Oregon.....	.....	3.80	.....	80,000
Pacific .....	.....	73.85	.....	3,680,000

CITY PASSENGER RAILROADS.

Cities.	Length. Miles.	Cost of roads, &c.
Boston, Massachusetts.....	67.39	2,964,875
New York	61.79	5,002,835
Brooklyn, New York.....	79.92	2,071,678
Hoboken, New Jersey.....	1.79	32,000
Cincinnati, Ohio.....	17.38	403,163
St. Louis, Missouri	26.30	576,590
Philadelphia, Pennsylvania	148.00	3,811,700
Total.....	402.57	14,862,840

RECAPITULATION.

States.				
New England ..	2,507.48	3,669.39	\$97,254,201	\$148,366,514
Middle Atlantic.	2,723.96	6,321.22	130,350,170	329,528,231
Southern Atlantic	1,717.37	5,454.27	36,875,456	141,739,629
Gulf	287.00	2,256.21	5,286,209	64,943,746
Interior, South..	78.21	1,806.35	1,830,541	49,761,199
Interior, North...	1,275.77	11,212.38	25,063,571	413,541,510
Pacific.....	.....	73.85	.....	3,680,000
Total	8,589.79	30,793.67	\$296,660,148	\$1,151,560,829
City railroads...	.....	402.57	.....	\$14,862,840
Total .....	.....	31,196 $\frac{1}{4}$	.....	*1,166,422,729

RAILROADS IN FRANCE IN 1862.

The customary half-yearly returns of French railways has just been published. It shows that on the 30th June of the present year, the total length of railway worked was 10,460 kilometres, or 6,537 English miles, and that on the corresponding date of last year the length was only 9,566 kilometres, or 5,915 miles. It shows also that the total receipts of the first six months of the present year were 221,620,660*f*, which make \$44,324,130, and that those of the corresponding period of 1861 were 210,567,546*f*, or \$42,113,510.

The following statement we take from the published returns, simply reducing the kilometres to miles and the francs to dollars. The term "Old network" means the old original concessions, and "New network" signifies new lines or embranchments and prolongations of old ones. The distinction is made, because on the new network the government guarantees a certain interest.

	June 30, 1862.		June 30, 1861.	
	Miles.	Receipts.	Miles.	Receipts.
Old network.....	4,377	\$37,413,955	4,365	\$36,608,645
New network.....	2,160	5,910,175	1,550	5,504,865
Total.....	6,537	\$44,324,130	5,915	\$42,113,510

* We doubt not that this sum is considerably too small for the aggregate cost of our roads, for the reason that the leading roads in furnishing and perfecting their works have expended large sums out of their earnings which have not gone to capital stock or bonded debt. We know of one road which has thus expended near \$2,000,000.

THE ATLANTIC TELEGRAPH.

Intelligence may be expected at any moment from the British steamer which was dispatched from St. John some months ago to take a new line of soundings along the coast of Newfoundland, and half way across the ocean, where she was to meet another British steamer (the Porcupine) which had been assigned to a similar duty along the Irish coast and the other half of the Great Atlantic Cable route. The Admiralty having ordered each steamer to return to her starting point, the results of the exploration of the western half will be first reported from St. John. The object of the new survey is to find the best places for the shore cable, and to ascertain, if possible, a still better range of soundings for the main line than the one determined on at the first survey.

The Porcupine, we learn, has already returned to Plymouth, and the Liverpool *Mercury* gives the following as the result of its labors:

"Some of the soundings extended to a depth of 2,500 fathoms. The visit of the steamer to Rockall, on the 14th of August, seems to have been prompted by a desire on the part of the Lords of the Admiralty to be able to judge, by a knowledge of its depth and character, of the expediency of dropping a cable across this bank, for the purpose of connecting Ireland with Iceland and America. On the ridge of the banks, soundings varied from 90 to 160 fathoms; fish were most abundant; the bottom consisted of mud and sand. The diagrams, returns, and reports from the officers engaged on board the Porcupine have been sent to Whitehall for the consideration in the first place of the Lords of the Admiralty, after which communication will be made by their lordships to the directors of the Atlantic Telegraph Company.

NEW TELEGRAPH LINES.

RUSSIA.—Accounts from St. Petersburg state that at the end of August there were in Russia 33,104 versts of electric telegraph (24,000 miles.) The number of stations was 150. An additional length of 10,335 versts is in course of being established.

NEW YORK AND LONDON.—In July last communication by electric telegraph could be made between London and Tumen, in Siberia, 4,039 miles distance. It is expected that the wires will be extended to Nikolaivski, on the Pacific, by the end of this year, and that there will be telegraphic communication with New York, *via* Siberia and California, by the end of 1863.

SWITZERLAND AND BAVARIA.—The cable intended to establish a direct telegraphic communication between Bavaria and Switzerland, was submerged on the 4th inst. The total length is 70,000 feet, and its weight 280 quintals. According to the soundings which have been made, the greatest depth of the Lake of Constance, where the cable will be placed, is 300 feet.

JOURNAL OF INSURANCE.

1. MARINE LOSSES FOR JULY AND AUGUST. 2. INSURANCE COMPANIES—WAR TAXES.

MARINE LOSSES FOR JULY AND AUGUST.

In the August number of *Merchants' Magazine* we gave a list of the marine losses for the six months ending with June last: we now publish the losses for July and August. These statements include only the value of property totally lost.

LOSSES FOR JULY.

	Name.	Captain.	From.	For.	Value.
Ship	Mary Merrill	Taylor	....	Welling'n N. Z.	\$18,000.
	Marengo	Doughty	Huelva	Liverpool	25,000
	Sea King	Cauldfield	Melbourne	Anjier	70,000
	Kearsage	Sawyer	Havana	New York	30,000
	Jos. Howe, (Br)	a* Slater	Eastport	Liverpool	31,000
	Simode	Smith	Melbourne	Calcutta	25,000
Bark	Reindeer, a & b.	Hewett	Cette	New York	20,000
	Gladiola, a	Davis	New York	Hong Kong	40,000
	Lebanon, (Br)	a.. Reid	New York	Belfast, I.	50,000
	Sooleo, b	Hames	Macao	Ningpo	18,000
	Philomela	Ellms	Sourabaya	Siam Gulf	25,000
Brig	Rravo, a	Muson	New York	Dunkirk	35,000
	Globe, (Br)	a	Jersey	Boston	15,000
	Orinoco	Nash	Minatitlan	Boston	9,000
	Reindeer, (Br)	a.. Balman	St. Jago	New York	30,000
Schr	Marie Flora, (Br)	m. Bernier	....	Boston	15,000
	Emeline, b	Dennison	New York	New Orleans	45,000
	Enterprise, a	....	Boston	New Orleans	42,000
	Udora, f	....	L. Ponch'in	New Orleans	3,500
Sloop	Alice, s c	....	.....	Brookhaven	1,000
Total losses for July, 20 vessels. Amount.....					\$536,500

LOSSES FOR AUGUST.

	Name.	Captain.	From.	For.	Value.
Str	Golden Gate, b	Hudson	S. Francisco	Panama	\$1,500,000
	Union Star, b'n up.	Bealchen	S. Francisco	....	30,000
	Cortez, b	Dall	Shanghai	Hankow	80,000
	Southerner, s c	McQuoid	N. Orleans	the coast	18,000
	West Point, s c	....	New York	Potomac	50,000
Ship	Mary Pleasants	Dixon	Akyab	Falmouth	40,000
Bark	Mansfield, (Br)	m. Netheway	New York	Llanlley	50,000
	H'y Gillispie, (Br)	f. Smith	Marseilles	New York	60,000
	Colooney, a	McCresy	New York	Sligo	20,000
	Escorisza	Ryder	Queenstown	Havana	14,000
	Brunette	Havlin	Havana	New York	33,000
	H. A. Rawlins, a	....	S. Francisco	Colorado R	210,000
Brig	Avon, (Br)	....	New York	Cardenas	15,000
	Hobart, a	Jordan	Scilly	Eastport	3,500

* Vessels marked a are abandoned at sea; those marked m, missing, supposed lost; those marked b, burned; those s c, sunk after collision, and those marked f, foundered.

	Name.	Captain.	From.	For.	Value.
Brig	Jacob Dock, a	Swendsen	New York	Cienfuegos	50,000
	King Brothers, (Br.)	Larraway	Pau Prince	New York	9,000
Schr	Louisa Reeves, a		New York	....	1,800
	Victor	Sears	Quincy	Sandy Hook	3,000
	Ellen, (Br) s c	Pettan	New York	Nassau	5,000
	J. B. Dickinson, a . . .	Stellman	Phil'd'lphia	E. Cambridge	3,300
	Zulette		Ellsworth	Boston	1,000
Sloop	Alice	Davis	Elizabethp't	Norwich, Ct	1,000
	Star, b		Mills'n Pt. Ct	Newport	800
	Bride		Falmouth	....	600

		Vessels.	Amount.
Total losses for the six months ending with June . . .		319	\$8,816,400
" " July		20	536,500
" " August		24	2,190,000
Total for eight months		363	\$11,551,900
Same period last year		307	9,990,230

INSURANCE COMPANIES—WAR TAXES.

The correspondent of the *Boston Post* says :

An attempt is making to effect a harmonious combination of fire under writers, throughout the North, with respect to the war taxes levied in the recent act of Congress upon insurance companies. On the 12th and 13th of August a convention was held in this city to discuss the subject. It appears that the new tax bill treads on the toes of fire underwriters in eight different places, and it was the unanimous conviction of the delegates to the convention that the burden should be borne by the assured and not by the companies. Although a slightly extra-judicial proceeding the convention also passed the following resolution : "*Resolved*, That the rates now paid for fire insurance in the United States are not on the average sufficient to preserve the companies in a sound condition, and enable them to pay a fair profit to their stockholders. The newly imposed taxes will, if the companies bear them, act as the final feather which the camel objected to carrying. Although small in themselves, they form in the aggregate a heavier load than some of the companies can safely undertake to bear. Here are the several items of taxes applicable to the insurance interest : On dividends declared, or surplus accumulations, three per cent ; on gross receipts of premiums, quarterly, one per cent ; stamp tax on appraisalment of value or damage, five cents ; bank checks for any sum over \$20, two cents ; certificates of stock, twenty-five cents ; every policy or renewal, twenty-five cents ; power of attorney for sale or transfer of stock, twenty-five cents ; proxy, ten cents. It is confidently stated that these taxes were laid by the committees of Congress with the express expectation that they were to be collected by the companies from their customers. It is therefore considered a simple matter of justice that the assured, who in these degenerate days secure indemnity against fire at rates which would be ridiculous were they not ruinous, should cheerfully pay these little assessments, and thus add to their own security by relieving the companies from a weight which, in the aggregate, is of magnificent proportions.

STATISTICS OF POPULATION.

1. POPULATION OF THE UNITED STATES ACCORDING TO THE EIGHTH CENSUS. 2. THE FLOW OF
POPULATION TO THE SUBURBS OF LONDON AND LIVERPOOL.

POPULATION OF THE UNITED STATES ACCORDING TO THE EIGHTH CENSUS (1860.)*

The following we have taken from Superintendent KENNEDY's well-arranged report of the eighth census:

TABLE SHOWING THE POPULATION OF THE STATES AND TERRITORIES.

States.	White.	Free colored.	Slave.	Total.
Alabama.....	526,431	2,690	435,080	964,201
Arkansas.....	324,191	144	111,115	435,450
				†14,555
California.....	361,353	4,086	.....	365,439
Connecticut.....	451,520	8,627	.....	460,147
Delaware.....	90,589	19,829	1,798	112,216
Florida.....	77,748	932	61,745	140,425
Georgia.....	591,588	3,500	462,198	1,057,286
Illinois.....	1,704,323	7,628	.....	1,711,951
Indiana.....	1,339,000	11,428	.....	1,350,428
Iowa.....	673,844	1,104	.....	674,948
Kansas.....	106,579	625	2	107,206
Kentucky.....	919,517	10,684	225,483	1,155,684
Louisiana.....	357,629	18,647	831,726	708,002
Maine.....	626,952	1,327	.....	628,279
Maryland.....	515,918	83,942	87,189	687,049
Massachusetts.....	1,221,464	9,602	.....	1,231,066
Michigan.....	742,314	6,799	.....	749,113
Minnesota.....	173,596	259	.....	173,855
Mississippi.....	353,901	773	436,631	791,305
Missouri.....	1,063,509	3,572	114,931	1,182,012
New Hampshire.....	325,579	494	.....	326,073
New Jersey.....	646,699	25,318	18	672,035
New York.....	3,831,730	49,005	.....	3,880,735
North Carolina.....	631,100	30,463	331,059	992,622
Ohio.....	2,302,838	36,664	.....	2,339,502
Oregon.....	52,337	128	.....	52,465
Pennsylvania.....	2,849,266	56,849	.....	2,906,115
Rhode Island.....	170,668	3,952	.....	174,620
South Carolina.....	291,388	9,914	402,406	703,708
Tennessee.....	826,782	7,300	275,719	1,109,801
Texas.....	421,294	355	182,566	604,215
Vermont.....	314,389	709	.....	315,098
Virginia.....	1,047,411	58,042	490,865	1,596,318
Wisconsin.....	774,710	1,171	.....	775,881
	26,708,157	476,562	3,950,531	31,149,805

* For statement of the population of each State and Territory, decennially, commencing 1790 to 1850, inclusive, see *Merchants' Magazine*, vol. xxvi., page 123.

† Indiana.

Territories.	White.	Free colored.	Slave.	Total.
Colorado.....	34,231	46	.....	34,277 *2,261
Dakota.....	2,576	.....	.....	2,576
Nebraska.....	28,759	67	15	28,841
Nevada.....	6,812	45	.....	6,857 *10,507
New Mexico.....	82,924	85	.....	83,009
Utah.....	40,214	30	29	40,273 *426
Washington.....	11,138	30	.....	11,168
District of Columbia...	60,764	11,131	3,185	75,080
	26,975,575	487,996	3,953,760	31,445,080

TABLE SHOWING THE NUMBER OF THE INHABITANTS OF THE STATES AND TERRITORIES AT EACH CENSUS FROM 1790 TO 1860, INCLUSIVE, AND THE NUMBER OF WHITES, FREE COLORED, AND SLAVES, RESPECTIVELY, DURING THE SEVERAL DECENNIAL TERMS AND FOR THE WHOLE PERIOD.

Aggregate population.	1790.	1800.	1810.	1820.
Total population.....	3,929,827	5,305,925	7,239,814	9,638,131
White population.....	3,172,464	4,304,489	5,862,004	7,861,937
Free colored population.	59,466	108,395	186,446	233,524
Free population.....	3,231,930	4,412,884	6,048,450	8,095,461
Slave population.....	697,897	893,041	1,191,364	1,538,038
Colored population.....	757,363	1,001,436	1,377,810	1,771,562
Aggregate population	1830.	1840.	1850.	1860.
Total population.....	12,866,020	17,069,453	23,191,876	31,445,089
White population.....	10,537,378	14,195,695	19,553,114	26,975,575
Free colored population.	319,599	386,303	434,449	488,005
Free population.....	10,856,977	14,581,998	19,987,563	27,463,580
Slave population.....	2,009,043	2,487,455	3,204,313	3,053,760
Colored population....	2,238,642	2,873,758	3,638,762	4,441,765

INDIAN POPULATION IN THE STATES AND TERRITORIES NOT ENUMERATED IN THE CENSUS AND RETAINING THEIR TRIBAL CHARACTER.

West of Arkansas.....	65,680	Tennessee.....	181
California.....	13,540	Wisconsin.....	2,833
Georgia.....	377	Colorado Territory.....	6,000
Indiana.....	384	Dakota Territory.....	39,664
Kansas.....	8,189	Nebraska Territory.....	5,072
Michigan.....	7,777	Nevada Territory.....	7,550
Minnesota.....	17,900	New Mexico.....	55,100
Mississippi.....	900	Utah Territory.....	20,000
New York.....	3,785	Washington Territory....	31,000
North Carolina.....	1,499		
Oregon.....	7,000		294,481

RECAPITULATION.

Total population of the States and Territories.....	31,445,089
White population of Indian Territory west of Arkansas....	1,988
Free colored population of Indian Territory west of Arkansas..	404
Slave population of Indian Territory west of Arkansas.....	7,369
Population of Indian tribes.....	294,431
Total population in 1860.....	31,749,281

In comparing the gain of any class of the population, or of the whole of it, one decade with another, the rate per cent. is not a full test of advancement. The *rate* of gain necessarily diminishes with the density of population, while the absolute increase continues unabated. It will be seen from the above tables that the actual increase of the entire free and slave population from 1850 to 1860, omitting the Indian tribes, was 8,225,464, and the rate per cent is set down at 35.46; while from 1840 to 1850 the positive increment of all classes was 6,122,428, yet the ratio of gain was 35.87 per cent. The two decades from 1800 to 1810, and from 1840 to 1850, were marked by the great historical facts of the annexation of Louisiana, and the acquisition of Texas, New Mexico, and California. Each of these regions contributed considerably to the population of the country, and we accordingly find that during those terms there was a ratio of increase in the whole body of the people greater by a small fraction than shown by the table annexed for the decade preceding the Eighth Census. The preponderance of gain, however, for that decennial term above all the others since 1790, is signally large. No more striking evidence can be given of the rapid advancement of our country in the first element of national progress than that the increase of its inhabitants during the last ten years is greater by more than 1,000,000 of souls than the whole population in 1810, and nearly as great as the entire number of people in 1820.

Thus far in our history no State has declined in population. Vermont has remained nearly stationary, and is saved from a positive loss of inhabitants by only one-third of one per cent. New Hampshire, likewise, has gained but slowly, her increment being only 8,097, or two and one-half per cent on that of 1850. Maine has made the satisfactory increase of 45,110, or 7.74 per cent. The old agricultural States may be said to be filled up, so far as regards the resources adapted to a rural population in the present condition of agricultural science. The conditions of their increase undergo a change upon the general occupation and allotment of their areas. Manufactures and commerce, then, come in to supply the means of subsistence to an excess of inhabitants beyond what the ordinary cultivation of the soil can sustain. This point in the progress of population has been reached, and, perhaps, passed in most, if not all, of the New England States. But while statistical science may demonstrate within narrow limits the number of persons who may extract a subsistence from each square mile of arable land, it cannot compute with any reasonable approach to certainty the additional population, resident on the same soil, which may obtain its living by the thousand branches of artificial industry which the demands of society and civilization have created. This is forcibly illustrated by the returns relative to the three other New England States—Massachusetts, Rhode Island, and Connecticut—which contain 13,780 square miles. The following table shows their population in 1850 and 1860, and its density at each period.

States.	1850.		1860.	
	Population.	Inhabitants to square mile.	Population.	Inhabitants to square mile.
Massachusetts.....	994,514	127.49	1,231,066	157.83
Connecticut.....	370,792	79.33	460,147	98.42
Rhode Island.....	147,545	112.92	174,620	133.63
	1,412,851	.....	1,865,838	.....

The aggregate territorial extent of Maine, New Hampshire, and Vermont, is 48,336 square miles; the number of their inhabitants 1,269,450, or 26.26 to the square mile. The stated point of density was passed by the three States named in the table more than fifty years ago, and yet they go on increasing in population with a rapidity as great as at any former period in their history.

South Carolina has gained during the decade 35,201 inhabitants of all conditions, equal to 5.27 per cent. Of this increase 16,825 are whites, and the remainder free colored and slaves. It is perhaps a little remarkable that the relative increase of the free colored class in this State was more considerable than that of any other. As their number, 9,914, is so small as to excite neither apprehension or jealousy among the white race, the increase is probably due both to manumission and natural causes. This State has made slower progress during the last term than any other in the south, having advanced only from 27.28 to 28.72 inhabitants to the square mile.

Tennessee, it will be observed, has made but the moderate gain of 10.68 per cent for all classes. Of this aggregate increase the whites have gained at the rate of 9.24 per cent upon 1850, the free colored 13.67, and slaves 15.14.

The next lowest in the rate of increase in the list of Southern States is Virginia, whose gain upon her aggregate population, in 1850, was 174,657, equal to 12.29 per cent. The white class gained 152,611, or 17.06 per cent, the slaves 18,337, or 3.88 per cent.

These are examples of the States wherein the population has advanced with slowest progress the past ten years. Turning now to the States which have made the most rapid advance, we find that New York has increased from 3,097,394 to 3,880,735, exhibiting an augmentation of 783,341 inhabitants, being at the rate of 25.29 per cent. The free colored population has fallen off 64 since 1850.

The gain in Pennsylvania has been in round numbers 595,000. In that State the free colored have increased about 3,000. The greater mildness of the climate and a milder type of the prejudices connected with this class of population, the result of benevolent influences and its proximity to the slaveholding States, may account for the fact that this race holds its own in Pennsylvania, while undergoing a diminution in the State next adjoining on the north.

Minnesota was chiefly unsettled territory at the date of the Seventh Census; its large present population, as shown by the returns, is therefore nearly clear gain.

The vast region of Texas ten years since was comparatively awil derness. It has now a population of over 600,000, and the rate of its increase is given as 184 per cent.

Illinois presents the most wonderful example of great, continuous, and

healthful increase. In 1830 Illinois contained 157,445 inhabitants; in 1840, 476,183; in 1850, 851,470; in 1860, 1,711,951. The gain during the last decade was therefore, 860,481, or 101.06 per cent. So large a population, more than doubling itself in ten years, by the regular course of settlement and natural increase, is without a parallel. The condition to which Illinois has attained under the progress of the last thirty years is a monument of the blessings of industry, enterprise, peace, and free institutions.

The growth of Indiana in population, though less extraordinary than that of her neighboring State, has been most satisfactory, her gain during the decade having been 362,000, or more than thirty-six per cent upon her number in 1850.

Michigan, Wisconsin, and Iowa have participated to the full extent in the surprising development of the northwest. The remarkable healthfulness of the climate of that region seems to more than compensate for its rigors, and the fertility of the new soil leads men eagerly to contend with and overcome the harshness of the elements. The energies thus called into action have, in a few years, made the States of the northwest the granary of Europe, and that section of our Union which, within the recollection of living men, was a wilderness, is now the chief source of supply in seasons of scarcity for the suffering millions of another continent.

Looking cursorily over the returns, it appears that the fifteen slaveholding States contain 12,240,000 inhabitants, of whom 8,039,000 are whites, 251,000 free colored persons, and 3,950,000 are slaves. The actual gain of the whole population in those States from 1850 to 1860, was 2,627,000, equal to 27.33 per cent. The slaves advanced in numbers 749,931, or 23.44 per cent. This does not include the slaves of the District of Columbia, who decreased 502 in the course of the ten years. The nineteen free States and seven Territories, together with the federal District, contained, according to the Eighth Census, 19,201,546 persons, including 27,749 Indians; of whom 18,936,579 were white, and 237,218 free colored. The increase of both classes was 5,598,603, or 41.24 per cent. No more satisfactory indication of the advancing prosperity of the country could be desired than this general and remarkable progress in population. North and south we find instances of unprecedented gains, as in the case of Illinois, just adverted to. In the southwest the great State of Missouri has increased by the number of 500,000 inhabitants, which is within a fraction of 74 per cent. It is due to candor to state that the marked disproportion between the rate of gain in the north and south respectively, is manifestly to some extent caused by the larger number of immigrants who settle in the former section, on account of congeniality of climate, the variety of occupation, the dignity wherewith respectable employment is invested, and the freedom of labor.

THE FLOW OF POPULATION TO THE SUBURBS OF LONDON AND LIVERPOOL.

A further publication of the census returns, not under that designation, but in a column of the Registrar-General's annual report, giving the population in all the sub-districts and divisions adopted for the purpose of registration, above 2,000 in all, shows in some detail the continuance

of the great movement from the rural districts into the towns, a displacement of population which is more or less general over Europe, and which proceeds as yet without any sign of reaction. The flow of population, for their habitations at least, to the suburbs of the great cities, is one of the most striking things in these tables. For instance, Everton (with Kirkdale), a suburb of Liverpool, had 35,776 people in 1851, and in 1861 the number was doubled. Another suburb, the parish of West Derby, increased its population from 33,014 to 52,740, nearly 60 per cent in ten years. So with Manchester; the town suburbs of Newton and Cheetham had 27,103 inhabitants in 1851, and 41,042 in 1861, 50 per cent more; and Pendleton rose from 16,974 to 24,448, 44 per cent. But the metropolis, thought so overgrown when it was so much smaller, presents everything upon the grandest scale. If we take up a map of London, we find these among the principal suburbs on the north side of the Thames—Poplar and Bow, Mild-end, Hackney, Islington, Kentish-town. Hampstead, St. Mary's, Paddington, and Kensington; those districts contained 328,880 inhabitants in 1851, and in 1861 they had 533,153, an increase in this large population of 62 per cent, or more than 200,000, being an addition to these suburbs of London of a number of persons exceeded by the entire population of only four provincial towns in all England. Or taking another suburb, the southeastern—Walworth, Peckham, Norwood, Snydenham, and Plumstead increased in ten years from 70,974 to 123,629, a growth of 74 per cent. These figures show in what direction the tide sets, and though it has covered districts where our fathers saw meadows, that is better than deepening in the old streets and courts. But while the census show us in various spots this astounding rise of a host of families, as if from the earth, it declares also that there is a smaller population to be counted levant and couchant in the heart of London and some other towns than there was ten years ago. Taken as a whole, the more crowded part of London contained 1,150,000 people in 1851, and about the same number were found there in 1861, but it is something to have thrown into the suburbs the increase of the ten years—in the whole metropolis 440,000, almost precisely the population of Liverpool. It is true that the population of the central portion of London has not remained the same in all its districts; Some are better off than they were, and some worse; north of the Thames (speaking still of this central and more crowded section) there has been a decrease of 11,000 or 12,000, and on the south side there has been a corresponding increase. But even in the south there is a far greater tendency to increase in the adjoining suburbs than in the hive that has settled along the river side; and it can hardly be that improvement will not spread from the north to the south, and part of the crowded population, willingly or unwillingly, disperse themselves over a larger area.

JOURNAL OF BANKING, CURRENCY, AND FINANCE.

1. CITY WEEKLY BANK RETURNS—NEW YORK BANKS, PHILADELPHIA BANKS, BOSTON BANKS, PROVIDENCE BANKS. 2. WEEKLY STATEMENT BANK OF ENGLAND. 3. BANKS—CENSUS RE-PORT. 4. PAPER FOR BANK OF ENGLAND NOTES STOLEN. 5. THE FIRST PAPER MONEY IN EUROPE. 6. THE BANKS AND THE TAX BILL. 7. BANKS OF ILLINOIS.

CITY WEEKLY BANK RETURNS.

NEW YORK BANKS. (*Capital, Jan., 1862, \$69,493,577; Jan., 1861, \$69,890,475.*)

Date.	Loans.	Specie.	Circulation.	Net Deposits.	Weekly Clearings.
January 4,.....	\$154,416,826	\$23,983,878	\$8,586,186	\$111,789,233	\$100,642,429
" 11,.....	152,088,012	25,373,070	8,121,512	113,889,762	105,634,811
" 18,.....	149,081,433	26,120,859	7,369,028	113,327,160	107,782,780
" 25,.....	145,767,680	26,698,728	6,828,017	110,874,786	100,001,959
February 1,.....	144,676,778	27,479,583	6,404,951	112,057,003	93,791,629
" 8,.....	143,803,890	28,196,666	6,077,417	110,687,557	113,216,297
" 15,.....	141,994,192	28,114,148	5,762,506	110,480,475	105,102,177
" 22,.....	139,950,958	28,875,992	5,489,496	109,079,076	111,346,066
March 1,.....	137,674,288	29,826,959	5,363,944	107,974,499	109,854,823
" 8,.....	133,055,148	30,436,644	5,869,206	103,715,728	112,512,576
" 15,.....	130,622,776	30,773,050	5,904,866	100,296,704	118,957,978
" 22,.....	127,615,306	32,023,890	6,260,309	97,601,279	115,376,381
" 29,.....	125,021,630	32,841,802	6,758,318	94,428,071	106,978,432
April 5,.....	124,477,484	33,764,382	7,699,641	94,082,625	111,336,384
" 12,.....	123,412,491	34,594,668	8,004,843	93,759,063	114,738,013
" 19,.....	123,070,363	34,671,528	8,064,663	95,179,340	118,529,377
" 26,.....	125,086,825	35,397,944	8,118,571	101,397,435	124,396,733
May 3,.....	133,406,418	35,175,828	8,482,782	109,634,535	140,952,471
" 10,.....	138,948,211	32,239,868	8,330,321	115,559,206	131,113,537
" 17,.....	142,290,782	30,260,697	8,727,328	120,003,929	167,391,055
" 24,.....	142,950,149	30,672,760	8,592,676	122,602,864	142,828,565
" 31,.....	142,671,414	31,897,284	8,535,149	125,434,755	136,893,373
June 7,.....	142,318,381	31,248,382	8,813,603	125,566,961	148,123,103
" 14,.....	144,014,350	31,162,048	8,814,322	125,643,375	165,591,454
" 21,.....	146,839,762	31,047,945	8,849,133	126,684,422	168,059,995
" 28,.....	148,346,422	30,832,626	8,910,344	127,860,708	154,890,447
July 5,.....	148,643,718	31,790,519	9,270,815	127,496,534	149,748,923
" 12,.....	147,997,436	32,098,174	9,212,397	127,538,055	167,789,726
" 19,.....	148,327,423	31,926,609	9,155,301	129,485,977	161,066,594
" 26,.....	149,768,293	33,064,575	9,244,953	132,427,178	162,650,811
August 2,.....	150,517,844	34,022,490	9,311,868	137,112,937	149,167,638
" 9,.....	151,190,203	34,611,069	9,321,504	139,544,630	139,926,277
" 16,.....	152,323,731	35,301,773	9,237,206	142,034,051	139,796,908
" 23,.....	154,355,704	35,588,486	9,356,635	143,347,341	147,659,037
" 30,.....	158,278,552	35,640,982	9,454,806	141,971,741	150,875,167
Sept. 6,.....	155,435,859	36,138,923	9,645,965	142,663,038	154,074,880
" 13,.....	157,828,513	37,125,245	9,719,126	144,991,062	155,813,245
" 20,.....	153,299,288	37,863,037	9,789,060	143,680,453	179,631,651

PHILADELPHIA BANKS. (Capital, Jan., 1862, \$11,970,180.)

Date.	Loans.	Specie.	Circulation.	Deposits.	Due to banks.	Due from banks.
Jan. 6,...	\$31,046,537	\$5,688,728	\$2,145,219	\$21,396,014	\$8,645,956	\$1,796,805
" 13,...	31,145,938	5,692,123	2,162,152	21,324,610	8,992,952	1,702,716
" 20,...	30,601,160	5,738,450	2,120,756	20,698,496	4,120,261	1,575,116
" 27,...	30,385,606	5,821,323	2,121,146	20,058,098	4,209,006	1,858,688
Feb. 3,...	30,385,819	5,884,011	2,144,398	20,068,890	4,572,872	1,707,136
" 10,...	29,974,700	5,923,874	2,191,547	19,082,535	4,890,288	1,587,481
" 17,...	29,388,544	5,849,354	2,191,512	18,692,182	4,661,442	2,052,031
" 24,...	29,280,049	5,867,686	2,230,605	18,777,300	5,205,203	1,935,414
Mar. 3,...	29,393,356	5,881,108	2,343,493	18,541,190	5,218,383	1,828,383
" 10,...	28,083,499	5,864,730	2,575,503	17,875,771	5,181,834	1,733,169
" 17,...	28,723,835	5,897,891	2,632,627	17,263,461	5,342,876	1,649,137
" 24,...	28,350,615	5,915,635	2,707,804	17,066,267	5,210,365	1,774,162
" 31,...	27,331,333	5,884,314	2,904,542	17,024,198	5,100,186	2,134,392
April 7,...	28,037,691	5,866,424	3,378,970	16,636,538	5,607,483	2,281,889
" 14,...	28,076,717	5,912,870	3,496,420	18,112,446	4,868,842	2,634,171
" 21,...	28,246,733	6,046,260	3,525,400	19,011,333	4,548,327	2,504,147
" 28,...	28,793,116	6,052,827	3,613,994	20,223,556	4,470,674	3,128,069
May 5,...	29,524,432	6,049,685	3,754,692	21,316,614	4,531,837	3,823,659
" 12,...	29,966,347	5,728,028	3,867,200	23,002,263	5,118,541	4,981,291
" 19,...	31,121,635	5,892,221	4,045,696	23,385,009	5,697,984	4,804,956
" 26,...	31,533,603	5,587,012	4,186,055	23,978,478	5,472,615	5,120,902
June 2,...	31,747,070	5,583,482	4,335,013	24,884,644	5,373,322	5,372,748
" 9,...	31,951,715	5,632,307	4,354,599	24,973,011	5,161,280	5,355,034
" 16,...	32,132,654	5,630,503	4,298,023	24,807,057	5,036,828	5,396,328
" 23,...	32,554,655	5,609,926	4,324,735	24,143,314	5,144,628	4,800,094
" 30,...	32,911,678	5,573,999	4,430,067	24,410,423	5,683,644	5,233,273
July 7,...	33,206,661	5,545,007	4,749,220	24,807,782	5,733,574	5,422,124
" 14,...	33,118,502	5,579,945	4,859,921	24,183,604	5,936,594	5,415,203
" 21,...	33,086,808	5,613,724	5,005,533	24,485,817	5,794,325	5,219,445
" 28,...	33,383,373	5,579,788	5,055,276	24,764,281	5,913,294	5,308,984
Aug. 4,...	33,517,900	5,660,187	5,026,070	24,658,289	5,934,242	5,406,075
" 11,...	33,543,878	5,652,730	4,999,935	24,217,855	6,339,018	5,204,511
" 18,...	33,506,039	5,582,605	5,006,351	24,147,814	6,400,820	5,316,223
" 25,...	33,781,575	5,438,051	5,002,418	24,237,662	6,533,786	5,446,155
Sept. 1,...	33,899,351	5,543,160	5,071,855	24,597,596	6,518,107	5,322,089
" 8,...	34,631,350	5,546,157	5,192,935	25,062,171	6,632,905	5,139,978
" 15,...	35,015,676	5,515,044	5,177,587	24,780,163	7,420,242	5,104,687
" 22,...	34,871,535	5,449,027	5,174,550	24,194,214	7,702,439	5,212,078

BOSTON BANKS. (Capital, Jan., 1862, \$33,231,700; Jan., 1861, \$33,231,700.)

Date.	Loans.	Specie.	Circulation.	Deposits.	Due to banks.	Due from banks.
Jan. 6,...	\$65,612,997	\$8,920,486	\$6,451,587	\$27,093,839	\$9,187,924	\$8,701,373
" 13,...	64,704,039	8,580,607	6,612,512	25,642,994	9,634,227	8,808,255
" 20,...	64,409,585	8,585,277	6,549,371	25,441,327	9,547,319	9,018,388
" 27,...	63,025,191	8,562,175	6,284,268	24,030,776	9,593,545	8,727,343
Feb. 3,...	62,628,793	8,629,433	6,260,299	23,500,321	9,727,733	8,766,415
" 10,...	62,840,600	8,514,600	6,616,000	22,784,700	9,892,600	8,965,500
" 17,...	62,537,788	8,410,890	6,469,309	22,034,794	9,653,725	8,315,887
" 24,...	62,053,440	8,341,568	6,580,205	21,515,233	9,625,869	8,644,360
Mar. 3,...	61,678,500	8,364,500	6,318,700	21,208,500	9,681,500	8,982,600
" 10,...	61,834,500	8,409,535	6,693,139	20,740,208	9,906,110	8,960,721
" 17,...	61,747,000	8,471,000	6,364,800	20,554,000	9,790,000	7,981,000
" 24,...	61,655,420	8,441,068	6,219,512	20,326,087	9,715,256	7,669,531
" 31,...	61,360,789	8,441,193	5,908,272	19,975,018	9,434,782	6,978,527
Apr. 7,...	61,208,974	8,674,170	6,557,152	21,014,000	9,245,088	8,132,124
" 14,...	61,058,969	8,688,573	6,170,383	21,009,010	8,949,259	7,173,374
" 21,...	61,019,787	8,679,356	5,924,906	21,570,017	8,529,277	6,946,164

Date.	Loans.	Specie.	Circulation.	Deposits.	Due to banks.	Due from banks.
Apr. 28, ...	60,441,452	8,664,797	5,500,396	22,402,184	8,493,004	7,813,530
May 5, ...	59,805,545	8,593,990	5,453,815	23,823,199	8,655,206	9,898,508
" 12, ...	59,521,251	8,422,738	5,537,937	24,827,121	9,197,744	11,755,589
" 19, ...	60,059,685	8,304,534	5,602,844	25,797,916	9,614,737	13,105,350
" 26, ...	60,266,275	8,108,695	5,503,756	26,264,656	10,029,198	13, 95,636
June 2, ...	60,677,367	8,089,723	5,343,138	26,730,486	10,226,491	13,924,896
" 9, ...	62,059,198	7,983,425	5,696,413	26,277,021	10,610,702	12,868,043
" 16, ...	62,591,341	7,894,899	5,875,612	25,602,048	10,632,170	11,884,692
" 23, ...	63,056,262	7,850,634	6,159,115	25,994,738	10,644,000	12,122,000
" 30, ...	63,638,999	7,801,487	6,181,019	26,237,754	10,678,205	12,265,781
July 7, ...	64,590,268	7,934,037	6,943,827	26,868,362	11,686,142	13,869,180
" 14, ...	65,635,000	7,973,000	7,091,000	26,683,000	12,675,700	13,624,000
" 21, ...	65,939,163	7,980,780	6,840,474	26,808,242	13,436,486	14,060,762
" 28, ...	66,168,806	7,963,696	6,618,160	26,698,825	13,583,589	13,197,239
Aug. 4, ...	66,836,729	7,966,702	6,633,822	27,315,402	14,018,524	13,473,620
" 11, ...	67,608,527	7,967,761	6,768,178	26,816,409	14,409,359	12,879,978
" 18, ...	68,234,988	7,975,427	6,778,260	26,572,677	14,854,778	12,566,167
" 25, ...	68,843,323	8,055,402	6,772,215	26,791,827	15,690,425	13,231,318
Sept. 1, ...	69,130,636	8,043,888	6,815,923	26,646,647	15,951,097	13,105,871
" 8, ...	69,788,676	8,006,695	7,065,156	26,942,637	15,982,000	13,106,000
" 15, ...	69,958,000	7,968,000	7,153,000	26,140,600	17,683,000	13,902,000
" 22, ...	70,332,397	7,968,546	7,239,383	25,970,904	17,594,158	13,585,410

PROVIDENCE BANKS. (Capital, Jan., 1862, \$15,454,600.)

Date.	Loans	Specie.	Circulation.	Deposits.	Due to banks.	Due from banks.
Jan. 1,	\$19,356,800	\$403,700	\$1,389,600	\$3,054,600	\$1,099,800	\$915,400
" 18,	19,238,700	402,900	1,390,800	2,899,200	1,071,500	898,500
" 25,	19,160,600	394,700	1,756,500	2,899,600	959,400	1,057,400
Feb. 1,	19,160,600	394,700	1,811,100	2,950,500	871,800	925,600
" 8,	19,087,700	395,900	1,814,300	2,915,200	900,400	934,700
" 15,	19,109,400	394,800	1,784,000	2,762,200	911,100	1,081,000
" 22,	18,869,800	396,800	1,879,100	2,792,700	892,900	1,180,000
Mar. 1,	18,920,500	407,600	1,791,200	2,924,400	953,900	1,283,000
" 8,	18,953,900	405,100	1,973,500	3,030,600	1,181,500	1,598,800
" 15,	18,998,600	408,500	1,848,100	2,946,800	1,103,200	1,484,300
" 22,	19,148,400	408,800	1,879,200	3,060,900	1,085,000	1,407,700
" 29,	19,360,500	411,300	1,867,100	3,078,800	1,021,000	1,165,400
Apr. 5,	19,641,000	417,500	2,102,000	3,124,000	1,115,500	1,063,200
" 12,	19,719,200	416,600	2,038,800	3,017,700	1,081,000	894,800
" 19,	19,644,500	408,600	1,953,400	3,015,900	1,020,400	845,400
" 26,	19,620,300	413,700	1,877,200	3,123,500	948,400	961,200
May 3,	19,638,410	417,378	1,979,828	3,134,601	950,430	1,156,072
" 10,	19,070,200	410,800	1,969,400	3,164,700	1,182,500	1,714,400
June 7,	19,236,100	395,600	2,016,600	3,342,400	1,653,000	2,101,900
" 14,	19,641,800	388,500	2,182,700	3,274,600	1,666,500	1,818,200
" 21,	19,327,500	386,600	2,324,900	3,153,600	1,627,500	1,744,400
" 28,	20,235,500	383,400	2,510,500	3,283,200	1,873,500	1,753,700
July 5,	20,588,800	392,100	2,888,300	3,531,500	1,763,900	1,858,800
" 12,	20,416,400	388,000	2,953,800	3,183,100	1,744,600	1,796,600
" 19,	20,494,600	384,800	2,980,200	3,347,300	1,918,500	2,023,400
" 26,	21,078,400	376,400	3,143,100	4,282,200	2,061,800	2,150,200
Aug. 16,	21,051,000	387,600	3,086,700	3,780,500	1,646,200	1,927,500
" 23,	21,119,500	363,300	3,102,000	3,569,900	1,801,600	2,090,700
Sept 6,	21,279,200	353,700	3,394,200	3,704,200	1,844,800	1,833,300
" 20,	21,804,200	35,690	3,484,300	3,731,600	1,710,800	1,642,300

BANK OF ENGLAND.

WEEKLY STATEMENT.

Data.	Circulation.	Public Deposits.	Private Deposits.	Securities.	Coin and Bullion.	Rate of Discount.
Jan. 1. . .	£20,818,190	£7,845,883	£15,086,062	£30,419,780	£15,961,489	3 pr. ct.
" 8. . . .	21,086,675	4,542,974	13,206,488	31,022,505	16,046,017	2½ "
" 15. . . .	21,460,925	4,588,858	16,450,452	29,509,864	16,291,626	2½ "
" 22. . . .	21,697,928	5,467,840	15,366,081	29,464,720	16,350,939	2½ "
" 29. . . .	21,183,376	5,758,063	14,751,486	28,696,456	16,280,369	2½ "
Feb. 5. . . .	21,427,554	5,788,441	14,179,917	28,834,352	15,956,908	2½ "
" 12. . . .	21,286,312	4,884,989	15,526,334	29,010,241	16,042,949	2½ "
" 19. . . .	20,772,726	5,397,144	15,085,843	28,771,812	15,894,405	2½ "
" 26. . . .	20,786,715	5,762,849	14,939,742	29,024,962	15,749,065	2½ "
Mar. 5. . . .	21,217,246	6,755,287	13,737,507	29,692,441	15,678,898	2½ "
" 12. . . .	20,018,685	7,527,911	13,763,718	29,489,795	16,027,111	2½ "
" 19. . . .	20,483,509	8,011,694	13,840,928	28,953,089	16,548,586	2½ "
" 26. . . .	20,814,655	8,413,275	13,154,258	29,140,207	16,812,798	2½ "
April 2. . . .	21,501,595	8,456,468	13,622,532	30,398,790	16,849,198	2½ "
" 9. . . .	21,822,105	5,625,314	16,336,169	29,981,793	16,881,940	2½ "
" 16. . . .	22,048,468	5,225,132	15,710,260	29,325,888	16,743,434	2½ "
" 23. . . .	21,655,553	5,534,973	15,915,247	29,022,128	17,172,204	2½ "
" 30. . . .	21,946,997	6,867,375	14,357,007	29,164,075	17,089,446	2½ "
May 7. . . .	21,752,884	7,503,991	13,866,643	28,961,214	17,265,745	2½ "
" 14. . . .	21,618,780	6,304,683	14,948,308	29,076,079	16,919,147	2½ "
" 21. . . .	21,539,430	6,557,811	14,567,671	29,433,044	16,844,940	3 "
" 28. . . .	21,265,561	6,987,808	14,685,087	29,824,704	16,178,815	3 "
June 4. . . .	21,515,263	7,518,007	13,188,136	29,841,864	15,489,723	3 "
" 11. . . .	21,329,641	8,825,516	13,156,662	31,396,492	15,036,100	3 "
" 18. . . .	21,076,059	9,322,949	13,085,271	31,342,547	15,268,453	3 "
" 25. . . .	21,172,057	9,629,594	13,399,245	31,424,661	15,909,638	3 "
July 2. . . .	22,242,361	9,672,345	13,851,869	32,709,039	16,220,771	3 "
" 9. . . .	22,504,490	5,429,939	17,199,715	31,287,912	17,055,537	2½ "
" 16. . . .	23,085,409	5,228,380	17,063,630	30,942,353	17,671,890	2½ "
" 23. . . .	22,942,503	5,291,213	17,202,923	30,631,501	18,060,617	2 "
" 30. . . .	22,938,036	5,895,840	16,903,068	30,542,050	18,448,443	2 "
Aug. 6. . . .	23,378,393	6,157,358	15,232,959	30,162,397	17,956,938	2 "
" 13. . . .	22,920,727	6,838,546	14,594,854	29,929,352	17,778,846	2 "
" 20. . . .	22,900,555	7,150,252	14,568,007	30,309,703	17,674,604	2 "
" 27. . . .	22,079,890	7,508,882	14,865,006	30,106,295	17,678,698	2 "
Sept. 3. . . .	22,848,918	7,671,934	14,973,470	30,308,748	17,825,220	2 "

BANKS—CENSUS REPORT.

Among the evidences of prosperity and general accumulation of wealth in the United States, the multiplication of banks with increased aggregate capital is one of the most significant. When, as in this country has been generally the case, individual promises representing produce and merchandise, and made available through the instrumentality of banks, are almost the sole means by which commodities pass from the producers to the consumers, the increased action of the banks becomes the index of larger production and more active trade. Where crops and the products of manufacturing industry are more abundant, the aggregate amount of paper created by their interchange is larger, and the negotiations of this paper require greater banking facilities. This want usually manifests itself in a more lucrative banking business, which draws more capital into that employment. Such a state of affairs presented itself during the decade which closed with 1860. The bank movement in the United States during that period under-

went great expansion without becoming less sound. In that respect it presented a strong contrast to the expansion that occurred in the decade which ended with 1840. In that period a season of speculation in bank stocks and wild lands manifested itself, and the paper created for bank negotiation represented imaginary or speculative values rather than commodities produced. Those values were never realized, and the whole paper system based on them collapsed. If we compare the aggregate features of the banks at each decade with the population and the sum of the imports and exports for corresponding dates, the results are as follows:

	No. of banks.	Capital.	Loans.	Specie.	Circulation.	Import and export.	Population.
1830.	880	\$145,192,268	\$300,451,214	\$22,114,917	\$61,323,898	\$144,736,498	12,866,020
1840.	901	358,442,692	462,996,523	38,105,155	108,988,572	239,227,465	17,069,453
1843.	691	328,061,948	251,544,987	33,505,806	58,563,608	149,090,279	.....
1850.	872	237,469,074	412,607,653	48,677,138	155,012,911	330,087,038	23,191,676
1860.	1,563	421,880,095	691,945,580	83,594,537	207,102,477	762,222,550	31,445,080

The year 1843 was that of the lowest depression after the extensive liquidation that followed the expansions of 1837-39. In that year the bank credits were, however, large, as measured by the foreign trade or the sum of the imports and exports, but an internal trade had been developed through the settlements of the western country which required more credits. The operation of the general bankrupt law aided in clearing away the wreck of over two hundred banks that had failed, and which failures involved that of several sovereign States that had loaned their credits for bank capital.

The elements of prosperity were now again active, and banking facilities were required to a greater extent. The severe losses the public had suffered made some more comprehensive guaranty necessary to a full restoration of confidence in bank paper. In New York, in 1838, a new principle had been adopted—that of requiring the banks to deposit security for their circulating notes and holding stockholders liable to an amount equal to the value of their shares. On this basis the banking of New York was thenceforth to operate; and the principle, as its value became recognized, was gradually adopted in other States.

The failure of the Irish harvests of 1846-47, followed by those of England in 1848-49, by creating a great demand for American breadstuffs, stimulated business and gave a new impulse to banking. The year 1850 showed an amount of foreign trade more than double that of 1843. With the increase of business the banks were very prosperous, as is manifest in the fact, that although the capital of the banks was no more in that year than in 1843, their discounts were one hundred and fifty millions, or 60 per cent greater. Thus the decade opened with a very lucrative banking business, and amid the greatest excitement in relation to the gold discoveries of California. The spirit of enterprise abroad was very strong, and the impression that prices were to rise by reason of the depreciation of gold was prevalent; hence the general desire to operate, in order to avail of the anticipated profits. Industry of all descriptions was very active and productive, and there never was a period when the national capital accumulated so fast, a remarkable evidence of which was afforded in the vast amount expended in the construction of railroads; while, of the large capital accumulated, a considerable portion was employed in banking. The incorporated bank capital increased nearly \$200,000,000 and the private bank capital half as much. The report of the Treasury Department gave the latter amount at \$118,036,080.

The increase of bank capital was large in the Atlantic cities, particularly in Boston and New York, of which the number and capital were respectively as follows :

	1850.		1860.		Increase.	
	No.	Capital.	No.	Capital.	No.	Capital.
Boston....	30	\$21,760,000	42	\$36,581,700	12	\$14,821,700
New York.	31	33,600,602	55	69,758,777	24	36,158,175
Total ...	61	\$55,360,602	97	\$106,340,477	36	\$50,979,875

This increase of banks, following the general expansion of business, brought with it the necessity of some improved means of adjusting the daily mutual balances. The fifty-five banks in New York city, for example, were each compelled to settle as many accounts daily. To obviate that great labor the clearing system was devised. Each bank sends every morning to the clearing-house all the checks and demands it may have received the day previous, in the course of business, upon all others. These in a short time are interchanged, and a balance struck and paid. This system was established in 1853, and the amount of the exchanges and balances annually were as follows :

	Amount exchanged.	Balances.
1854.....	\$5,750,455,987 06	\$297,411,493
1855.....	5,362,912,098 33	289,694,137
1856.....	6,906,213,328 47	334,714,489
1857.....	8,333,226,718 06	365,313,901
1858.....	4,756,664,386 09	314,238,910
1859.....	6,448,005,956 01	363,984,682
1860.....	7,231,143,056 69	308,693,438
1861.....	5,915,742,758 05	353,383,944
Total	\$50,704,365,288 81	\$2,627,434,997

With the development of business the transactions grew immensely up to 1858, when they fell off nearly one-half under the panic of that year. They recovered gradually up to the breaking out of the rebellion. The banks of Boston and Philadelphia adopted the same system with similar results. The figures indicate to what an extent the credits of individuals, created in the operations of business, are cancelled through the intervention of the banks of the cities where the commerce of the whole country centralizes.

In the States of Illinois, Mississippi, Arkansas, and Florida, after the collapse of 1837, no banks were again created up to 1850, and the three last named are still without them, with the exception of two small ones in Florida. Texas has a small bank at Galveston, and Utah, Oregon, and New Mexico have none. In the District of Columbia four old banks expired by limitation of charter in the hands of trustees, and Congress refused to recharter them ; but they continue to transact business.

It is probable that a large portion of the increase in banking, particularly at the West, has been due to the introduction of the security system of New York, the idea of which seemed to popularize that which had previously been in bad odor. The following table shows the States which have adopted the free banking principle in whole or in part :

		1860.	
	Year adopted.	Stocks held.	Circulation.
New York	1838	\$26,897,874	\$29,999,506
Michigan	1849	192,831	222,197
New Jersey	1850	962,911	4,811,832
Virginia	1851	3,584,078	9,812,197
Illinois	1851	9,826,691	8,981,723
Ohio	1851	2,153,552	7,983,889
Indiana	1852	1,349,466	5,390,246
Wisconsin	1854	5,031,504	4,429,855
Missouri	1856	725,670	7,884,885
Tennessee	1852	1,233,432	5,538,378
Louisiana	1853	5,842,096	11,579,313
Iowa	1858	101,849	568,806
Minnesota	1858	50,000	50,000
Total		\$57,951,954	\$97,212,827

The principle cannot be said to have worked well except in New York, where it required constant alterations for many years to bring it to perfection.

The following table shows the number of banks in the United States in 1860:

States.	Banks & branches.	Capital.	Loans.	Specie.	Circulation.	Deposits.
Alabama	8	\$4,901,000	\$13,570,027	\$2,747,174	\$7,477,976	\$4,851,153
Connecticut	74	21,512,176	27,856,785	989,920	7,561,519	5,574,900
Delaware	12	1,640,775	3,150,215	208,924	1,135,772	976,226
Florida	2	800,000	444,630	32,876	183,640	129,518
Georgia	29	16,689,560	16,776,282	3,211,974	8,798,100	4,733,289
Illinois	74	5,261,225	387,229	228,812	8,981,723	697,037
Indiana	97	4,343,210	7,675,861	1,583,140	5,890,246	1,700,479
Iowa	12	460,450	724,228	225,545	568,806	527,378
Kansas	1	52,000	48,256	8,268	8,895	2,625
Kentucky	45	12,835,670	25,284,869	4,502,250	13,520,207	5,662,892
Louisiana	13	24,496,866	35,401,609	12,115,431	11,579,313	19,777,813
Maine	68	7,506,890	12,654,794	670,979	4,149,718	2,411,023
Maryland	31	12,568,962	20,898,762	2,779,418	4,106,369	8,874,180
Massachusetts	174	64,519,200	107,417,323	7,532,647	22,086,920	27,804,699
Michigan	4	755,465	892,949	24,175	222,197	375,397
Missouri	38	9,082,951	15,461,192	4,180,912	7,884,885	3,857,176
N. Hampshire	52	5,016,000	8,591,688	255,278	3,271,183	1,187,991
New Jersey	49	7,884,412	14,909,174	940,700	4,149,718	5,741,465
New York	308	111,441,320	200,351,332	20,921,545	29,959,506	104,070,272
North Carolina	50	6,426,478	12,213,272	1,617,687	5,594,047	1,487,273
Ohio	52	6,890,839	11,100,462	1,828,640	7,983,889	4,039,614
Pennsylvania	90	25,565,582	50,327,157	8,378,474	13,132,892	26,167,843
Rhode Island	91	20,865,569	26,719,877	450,920	3,558,295	3,553,104
South Carolina	20	14,962,062	27,801,912	2,324,121	11,475,634	4,163,615
Tennessee	34	8,067,087	11,751,019	2,267,710	5,588,378	4,324,799
Vermont	46	4,029,240	6,496,523	198,409	3,882,983	777,834
Virginia	65	16,005,156	24,975,792	2,948,652	9,812,197	7,729,652
Wisconsin	108	7,620,000	7,592,861	419,947	4,429,855	3,085,813
Total	1,642	421,890,095	691,495,580	83,564,528	207,102,477	253,802,129
Total 7th census	872	227,469,077	412,607,653	48,671,133	155,012,881	127,567,655
Increase	770	194,421,018	278,887,927	34,893,395	52,089,596	126,234,474

PAPER, FOR BANK OF ENGLAND NOTES, STOLEN—COUNTERFEITS HOW DETECTED.

The Directors of the Bank of England have met with a serious reverse. Hitherto, their great protection against the ingenuity of the forger has been the peculiarity in the manufacture of their paper—a peculiarity which has hitherto defied imitation. Various as have been the attempts to imitate this paper, it has never been successful, and a spurious Bank of England note could always be detected by the quality of the paper alone—that is, detected by all who are accustomed to the handling of the national notes. Finding that they could not successfully make this paper, the forgers have had recourse to a more simple mode of procuring it—they have stolen a large quantity, some say several tons, from the Bank's mills, in Hampshire, and there is great consternation in Threadneedle-street. The robbery was only brought to light by the great number of forged notes in circulation, which are so like the real thing that the most experienced in such matters have been imposed upon, even practised cashiers and others long accustomed to the handling of notes. When the painful fact was satisfactorily established, the Bank Directors immediately issued a reward of £1,500 for the discovery of the thieves and forgers, of which £500 is to be paid for the detection of the paper-stealers, and £1,000 to those who can trace out the persons using the paper in the printing of forged notes. Bankers, money-changers, and others are urged in the same announcement to exercise the utmost vigilance in the receiving of Bank of England notes, and are requested to note the name and address of the persons from whom they receive them. The robbery in question is a very serious affair both at home and abroad, and its consequences may be most disastrous unless the culprits are detected and brought to justice.

The *Liverpool Post* of August 21 gives the following instructions for detecting the counterfeits now in circulation :

The forged £5 and £10 Bank of England notes now in circulation are easily detected. In the first place they are vilely engraved, the signature is clumsy and unlike, and the vignette of Britannia is so badly executed that a mere glance detects the forgery. In the genuine note the background represents air and water—the air by faint lines, the water by dark lines but the most facile way is to look at the numbers. Previous to 1858 the

H

two letters, one above the other, thus,—59784*, for instance, were en-

N

graved in what printers call open letters, but now these directing letters are

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printed in black, thus, ^H5934*. The forgers copied notes issued before

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1858, but date their forged notes 1861 or 1862.

THE FIRST PAPER MONEY IN EUROPE.

The following account of the first issue of paper money in Europe, is taken from WASHINGTON IRVING'S "Chronicle of the Conquest of Granada:"

"After the city of Alhambra was taken from the Moors, the veteran Count De Tendilla was left governor, and we were informed that this

cavalier at one time was destitute of gold and silver wherewith to pay the wages of his troops and the soldiers murmured greatly seeing that they had not the means of purchasing necessities from the people of the towns.

"In this dilemma what does this most sagacious commander? He takes him a number of little morsels of paper, on which he inscribes various sums, large and small, according to the nature of the case, and signs them with his own hand and name. These did he give to the soldiery in earnest of their pay. How! you will say, are soldiers to be paid with scraps of paper? Even so, I answer, and well paid too, as I will presently make manifest; for the good Count issued a proclamation ordering the inhabitants of Alhambra to take these morsels of paper for the full amount thereon inscribed, promising to redeem them at a future time with silver and gold, and threatening severe punishment to all who should refuse.

"The people having full confidence in his words, and trusting that he would be as willing to perform the one promise, as he certainly was able to perform the other, took those curious morsels of paper without hesitation or demur. Thus by a subtle and most mysterious kind of alchemy did this cavalier turn a useless paper into precious gold, and make his impoverished garrison abound in money. It is but just to add that the Count of Tendilla redeemed his promise like a loyal knight; and this miracle, as it appeared in the eyes of Antonio Agrepieda, is the first instance on record in Europe of paper money, which has since inundated the civilized world with unbounded opulence.

THE BANKS AND THE TAX BILL.

[OFFICIAL REPORT.]

WE are indebted to GEORGE D. LYMAN, Esq., for the following report of the Bank Tax Committee adopted by a meeting of bank officers, held Monday, Sept. 24, 1862.

The undersigned, appointed a Committee for the consideration of the United States Tax Law, as affecting the business of Banks, after a very careful consideration of the subject, beg leave to report the following schedule, approved by Governor BOUTWELL, the Commissioner of Internal Revenue, as the result of their labors. The Committee take this opportunity of returning to that gentleman, on behalf of the Associated Banks of this city, their cordial thanks for the kind and courteous treatment received at his hands during their several interviews with him at Washington.

New York, September 29, 1862.

GEO. S. COLE, President Am. Exchange Bank,	} Committee.
A. E. SILLIMAN, President Merchants' Bank,	
J. M. MORRISON, President Manhattan Company,	
JOS. M. PRICE, President Oriental Bank,	
R. H. LOWRY, Cashier Bank of the Republic,	

SCHEDULE.

- | | |
|--|-----|
| 1st, Agreements or Contracts other than those hereinafter named, for each sheet or piece of paper upon which the same shall be written, five cents | .05 |
| 2d. Checks, Drafts, or Orders, for the payment of money, payable at sight or on demand (for any sum exceeding \$20.) each two cents | .02 |

3d. Inland Bills of Exchange, Drafts, Checks, or Orders drawn upon places other than the place of issue, *if payable at sight*, or on demand, are subject to the same rate of tax, viz:..... .02

4th. Inland Bills of Exchange, Drafts, or Orders for the payment of money *otherwise than at sight or on demand*, and all promissory notes on demand or on time (excepting Circulating Bank Notes.)

Exceeding \$20 and not exceeding \$100..... .05

Exceeding \$100 and not exceeding \$200..... .10

Exceeding \$200 and not exceeding \$350..... .15

Exceeding \$350 and not exceeding \$500..... .20

Exceeding \$500 and not exceeding \$750..... .30

Exceeding \$750 and not exceeding \$1,000..... .40

Exceeding \$1,000 and not exceeding \$1,500..... .60

Exceeding \$1,500 and not exceeding \$2,500..... 1 00

Exceeding \$2,500 and not exceeding \$5,000..... 1 50

And for every additional \$2,500, or part of \$2,500, one dollar.... 1 00

5th. Foreign Bills of Exchange drawn *out of*, but payable *in* the United States, and all such bills, *drawn in*, but payable *out of* the United States "when drawn singly or otherwise than in a set of three or more," and all letters of Credit, pay the same rates of duty as in the preceding Schedule.

[NOTE.—When such bills are drawn in any foreign currency the equivalent in dollars is taxable according to the standard value fixed by the United States.]

6th. Bills of Exchange drawn *in*, but *payable out of* the United States, "if drawn in a set of three or more," for every Bill of each set, not exceeding \$150, or its equivalent, three cents..... .03

Exceeding \$150 and not exceeding \$250..... .05

Exceeding \$250 and not exceeding \$500..... .10

Exceeding \$500 and not exceeding \$1,000..... .15

Exceeding \$1,000 and not exceeding \$1,500..... .30

Exceeding \$1,500 and not exceeding \$2,250..... .30

Exceeding \$2,250, and not exceeding \$3,500..... .50

Exceeding \$3,500 and not exceeding \$5,000..... .70

Exceeding \$5,000 and not exceeding \$7,500..... 1 00

And for every additional \$2,500, or part thereof..... .30

7th. Bonds of Indemnity, fifty cents..... .50

8th. Certificates of Stock in any incorporated company, each twenty-five cents..... .25

9th. Certificates of Deposit of Bank, Trust Company, Banker, or Person acting as such, not exceeding \$100, two cents..... .02

Exceeding \$100, five cents..... .05

10th. Powers of Attorney—

For sale or transfer of Stocks or Bonds, or for the collection of Dividends or Interest, twenty-five cents..... .25

Or proxy for voting at an election, ten cents..... .10

For receiving or collecting rents..... .25

General Powers—For all purposes other than those above specified 1 00

[NOTE.—General Powers will not be valid for either of the specific objects above named, without the addition of the stamp required therefor.]

- 11th. Protests, each twenty-five cents..... 25
 12th. Tax on all Dividends, and on all sums added to Surplus or
 Contingent funds.....*Three per cent.*
 13th. Stamps issued for specific instruments cannot be used for any other.
 (See sec. 96.)
 14th. The person using or affixing a stamp, must write thereupon the
 initials of his name, and the date when used. (See sec. 99.)
The penalty for making, signing, or issuing any instrument, document,
 or paper of any kind, without the same having thereon a stamp to denote
 the duty, is *fifty dollars*, and such a paper will be invalid and of no effect.
 (Sec. 95.)

The certification of checks, already duly stamped, will require no additional stamp for such certification.

The stamp tax upon protests should be added to the expenses thereof.

All dividends or coupons, payable *prior* to or on September 1st, 1862 although paid after that day, are exempt from the operations of the law.

Checks dated or payable ahead, are subject to taxation as promissory notes.

Stamps are not required upon documents made prior to October 1st, 1862, excepting upon foreign bills of exchange, which must be stamped on acceptance.

The Committee recommend, as a simple and convenient method, that the three per cent tax required upon dividends and surplus profits be deducted by banks in gross from their net earnings before the declaration of dividends. Dividends then declared would be free from tax. The three per cent thus withheld must be paid to the United States within thirty days from the date on which such dividends are payable, under penalty of five hundred dollars for default. (Sec. 82.)

Stamps must be affixed to all documents by the party issuing the same, before presentation at Bank; and all documents issued by a Bank must be stamped by it before delivery, as required by resolution unanimously passed at a meeting of Bank Officers, September 15.

Stamps, in amounts of \$50 and over, can be obtained of the Commissioner of Internal Revenue, as per Schedule hereunto annexed; for which a commission of not exceeding five per cent, *in stamps*, will be allowed.

All checks of a Bank upon itself, for payment of dividends or otherwise, and all written papers for facilitating the *internal* business of Banks, are exempt from tax.

Orders to pay dividends are not Powers of Attorney; but, like drafts at sight, are subject to the stamp of two cents.

Bills of Exchange, drawn in duplicate, must both be stamped.

Stamps may be canceled by an instrument made for the purpose of impressing the initials of the Bank or person thereon, to which the date must be added.

Revenue stamps may be ordered from this office in quantities to suit

The omission to cancel the stamps on checks does not invalidate the checks, but subjects the maker to a fine of fifty dollars.

Washington, September 25, 1862.

I have examined the foregoing memoranda, and I am of opinion that the specifications conform to the provisions of the Excise Law in all essential particulars.

GEO. S. BOUTWELL, *Com. of Internal Revenue.*

Until the government provide stamps no penalty will be exacted for their omission.

OFFICE OF INTERNAL REVENUE, }
September 17th.

Revenue Stamps may be ordered from this Office in quantities to suit the purchasers. Orders should cover remittances of Treasury notes, or an original certificate of a United States Assistant Treasurer, or designated depository, of a deposit made for the purchase of stamps.

The following commission, *payable in stamps*, will be allowed :

On purchases of \$50 or more, two per centum.

On purchases of \$100 or more, three per centum.

On purchases of \$500 or more, four per centum.

On purchases of \$1,000 or more, five per centum.

In sending orders for stamps it should be remembered that every stamp expresses upon its face its kind as well as its denomination, and that each stamp must be used for the purpose thus specified, and for no other. For instance : Check stamps must be used for checks alone ; contract stamps only on contracts, etc., etc. Revenue stamps will be ready for delivery on the 22d instant. Every correspondent is requested to give the State, as well as town and county, of his residence.

If not otherwise instructed, the stamps will be transmitted by mail.

GEORGE S. BOUTWELL, *Commissioner*.

On motion of Mr. HAYDEN, the following resolutions were unanimously adopted, viz. :

Resolved, That the report of the Committee be accepted and adopted, and the Committee discharged.

Resolved, That the thanks of this meeting be presented to the Committee for the faithful discharge of their arduous labors.

The following resolution was also adopted unanimously, viz. :

Resolved, That, *until* the government provide stamps for checks, it is understood that the written agreement entered into between the banks, on the 15th of September, 1862, be considered extended, and that a copy of this resolution be sent to every bank which has signed that agreement and their written assent to this resolution requested, and that the Chairman of the Clearing-house Committee be authorized to notify the banks when that agreement becomes binding.

On motion of Mr. BERRY, it was ordered that the report of the Committee be printed, for the use of the banks and the information of their correspondents.

The meeting then adjourned.

GEORGE D. LYMAN, *Secretary*.

JOURNAL OF MERCANTILE LAW.

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1. PROMISSORY NOTE PAYABLE ON DEMAND. 2. A QUESTION OF "COMMERCIAL MORALITY." 3. STATUTE OF FRAUDS. 4. NO MORE SAILORS DESERTING AT SAN FRANCISCO. 5. PROMISSORY NOTES MADE IN KENTUCKY AND PAYABLE IN NEW YORK.

### PROMISSORY NOTE PAYABLE ON DEMAND.

AN INDORSER ON A NOTE PAYABLE ON DEMAND WITH INTEREST; REMAINS LIABLE UNTIL AN ACTUAL DEMAND IS MADE EVEN THOUGH SEVERAL YEARS MAY ELAPSE BEFORE SUCH DEMAND IS MADE.

AN interesting case has been decided lately by the Court of Appeals of the State of New York, (*MOORETT vs. TODD*, 23 N. Y. Reports 28,) settling, so far as this State is concerned, the vexed question of how long the holder of a note payable on demand *with interest* can omit to protest the note and still be able to hold the indorser. It is well known that the payment of an ordinary note must be demanded when due, and protest must be served without delay—that is due diligence must be used in performing the act. Thus in the language of the books, notice of the dishonor of the bill or note must be given within a reasonable time. When parties reside in the same town or city, this reasonable time is held not to extend beyond the next day after the obligation is due and presentment for payment has been made. When they reside in different towns or cities and the notice is sent by post, it must be mailed early enough for transmission on the day following the dishonor. These are legal propositions well known to all.

It would seem, therefore, that in applying such familiar principles to a note payable on demand, that the only point necessary to decide would be, *when may we consider such a note to be due*. If it is due at once when given, why should not the demand for payment be made and the protest served at once, that is, within a reasonable time? That such a note is thus due the day it is given has been many times decided by our courts, and whether demand is made or not the statute of limitation begins to run from the date of the note. (*WENMAN vs. Mohawk Insurance Co.*, 13 WEND. 267). We would naturally conclude, therefore, that as the note is due immediately, the demand should be made and protest served immediately. Such has been the conclusion in many States.

But in the case above referred to, our Court of Appeals has held that a note payable on demand *with interest* is a continuing security; *an indorser remains liable until an actual demand is made, even if the holders were to wait several years before making the demand*. In the action decided, for instance, the note was dated May 5, 1852, and the demand was not made until the 24th of December, 1855. We produce an extract from the opinion of the Court to show the grounds of its decision, and it will be seen from it that a very proper distinction is made between demand notes payable with and without interest. The Court says:

"A demand note may be payable with or without interest. If the security be *not* on interest, it may be a fair exposition of the contract to hold that no time of credit is contemplated by the indorser, and that the de-

mand should be made as quickly as the law will require upon a check or sight-draft. Such a note, payable at a bank where the maker keeps his funds, will perform essentially the office of a check, imposing the duty of early presentment in order to hold the collateral parties. Drafts or checks are, however, almost universally used in such transactions. But, whatever may be the rule where the security is not on interest, we think that a note payable on demand with interest is a continuing security, from which none of the parties are discharged until it is dishonored by an actual presentment and a refusal to pay. The loan or forbearance of money may be for a definite or an indefinite time. If the parties declare in the written instrument, which is the only evidence of their agreement, that the money shall be paid on call, with interest in the meantime, a productive investment of the sum for some period of time is plainly intended. What, then, is that period? The only answer which can be given is, that it is indefinite or indeterminate, and ascertainable only by an actual call for the money; and if that be the meaning of the principal parties, the indorser must be deemed to lend his name to the contract with the same intention. The only rational alternative is, that the payee or holder of such a note must demand its payment on the same day, or the day after, he receives it, unless some necessity or convenience of his own will excuse no longer delay; and he must give immediate notice of the refusal to the indorser. But a demand thus quickly made would probably, in every case, violate the actual intention of the parties, and it ought not, therefore, to be required as a rule of law for any collateral purpose. It should not be required in order to charge an indorser, if the act would not be consistent with the fair interpretation of the principal contract. In short, we see no good reason why a note, like the one now in question, should not be construed precisely according to its terms; and if we follow that construction, such instruments are not dishonored by the mere effluxion of time which is provided for in their own language."

It should be mentioned as a further fact in this case, that interest on the note was paid regularly each year.

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#### STATUTE OF FRAUDS.

THE WORDS "FOR VALUE RECEIVED" IN A GUARANTY OF A PROMISSORY NOTE, ARE A SUFFICIENT EXPRESSION OF THE CONSIDERATION.

On page 582, vol. 45, of the *Merchants' Magazine*, we made some remarks upon the provision of the Statute of Frauds requiring a promise to answer for the debt of another person, to be in *writing*, and to have a *consideration* to support it. A guaranty is an engagement of this nature, and must therefore be right in these particulars. Of course, as we stated in the article here referred to, where the promise is an *original* undertaking—or where the original debt and the guaranty are contemporaneous, no other consideration is necessary, than that which moves between the creditor and the original debtor. But if a promise of guaranty be made in respect to a debt which is already incurred, it will be void for want of consideration, unless there be some new consideration to support it. These points, however, we do not propose to notice farther, as they were fully discussed in the former article.

Yet there is one other important particular which must be remembered. Not only must the *guaranty* be in *writing*, and have a consideration to support it, but the *consideration* itself must be stated in writing. This construction—that is, that the consideration as well as the promise of guaranty must be in writing—has been given to the Statute of Frauds in England, and has been adopted in New York, New Hampshire, South Carolina, and some other States, but we believe that Massachusetts, Maine, New Jersey, North Carolina, and Connecticut have adopted the opposite construction, and require that only the promise of guaranty, and not the consideration, need be set forth in the writing.

We now have, however, a decision of the Court of Appeals of New York State, (*MILLER vs. COOK* 22, N. Y. Reports 495.) expressly deciding that where the words “for value received” are in the written guaranty, they amount to a sufficient expression of the consideration. That is, it is not necessary even in New York to state in the writing *what* the consideration is, but to set out that there is one, by inserting the words “for value received.” This point has been one of some doubt heretofore, (although we have several adjudications upon it,) but we are glad that it has now been definitely decided by our court of last resort.

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#### NO MORE SAILORS DESERTING AT SAN FRANCISCO.

The San Francisco *Bulletin*, of a late date, tells us that “When the clipper ship *Rambler* arrived some time ago from Boston, some seventeen or eighteen of the sailors deserted, but three of them were arrested and are still in custody. Captain CARLTON of that ship drew a pistol on one of the runners who was inducing the sailors to run away, and he was arrested for assault with a deadly weapon, but upon hearing the facts, Judge COWLES decided that he had a right to use such means to detain his men, who had shipped for an eighteen months’ voyage, or from Boston to San Francisco and back. Some of the sailors then wanted to libel the ship for their pay, but United States Commissioner CHEVERS, before whom the case was brought, gave them no satisfaction, deciding that they, as deserters, were entitled to no pay. Then they brought the matter before Justice CARMAN’s Court, in another shape, but failing here, they again tried to libel the ship for wages, this time going before United States Commissioner HYDE. Again they were unsuccessful, and as a last resort, the three deserters who were arrested petitioned Judge REYNOLDS for a writ of *habeas corpus*, which was granted, and they were present in the 4th District Court room when the matter was argued and submitted by counsel. Judge REYNOLDS has now remanded them to custody. This, we believe, is the first case of the kind that has been brought before our courts in so many shapes, and so toughly contested. The result will be beneficial to the interests of commerce, for the owners of ships are averse to sending their vessels hither, on account of the certainty of losing their men by desertion, which involves both loss of time in getting new ones, and loss of money. The owner of the *Rambler*, for instance, loses many thousands of dollars by the desertion of the crew, who were employed in Boston for \$12 per month, and whom he will have to replace (with the exception of three) with men who will charge \$30 or \$35 per month.”

## A QUESTION OF "COMMERCIAL MORALITY."

The case of *Behrens and others vs. Allen* has been heard in one of the English courts. It was an action to recover damages for two libels published in the *Manchester Guardian*, and the defendant in addition to "not guilty," pleaded that the alleged libels were true in substance and in fact.

Mr. SERJEANT SHEE, Mr. EDWARD JAMES, Mr. POPE, and Mr. BUTLEE RIGBY, appeared for the plaintiffs; and Mr. BOVILL, Mr. HAWKINS, and Mr. J. A. RUSSELL were for the defendant.

The case for the plaintiffs was, that they were merchants and commission agents, in business at Bradford and at Manchester, and the firm consisted of four brothers, who were natives of Hamburg, but who had been established for twenty-nine years at Bradford, and twenty-two years at Manchester. They were in the habit of sending silk, linen, and cotton goods to all parts of the world, and their annual returns were about £400,000. Messrs. DALTON BROTHERS were the sons of a gentleman who was formerly in business very extensively as a printer of cotton goods, but who had retired, and was supposed to possess great wealth. The course of the trade of the sons was to purchase gray cloths, and to get them bleached and printed according to their own designs. In June, 1860, the firm became DALTONS & HEAP, and their credit was untarnished until they failed for £78,000. An examination took place in the Bankruptcy Court, and on the 17th of October, 1861, there appeared in the *Manchester Guardian* the first libel now complained of. [The article referred to statements made in the Bankruptcy Court that the bankrupts had bought gray cloth goods, and sold them a few days afterwards at a considerable reduction to Messrs. BEHRENS, and after stating the circumstances, said—"Such is the disclosure to which we wish to call attention as having been made in these proceedings. It exhibits no isolated case in making a 'good bargain,' such as necessity on one side and ready money on the other often bring about, without leaving any reflection on the parties, but points to a regular and systematic course of transactions which, though probably beyond the reach of the criminal law, were clearly inconsistent with honest trading. We have a firm of colico printers purchasing gray cloths on credit, and selling them at a loss for cash, and we have an agent always ready to accommodate them by purchasing. The question may yet be raised whether the latter cannot be made to restore the goods obtained in this way from a house evidently on the high road to bankruptcy; but it is plain enough that it was his instrumentality which allowed the rotten business to go on. And just as the Fagins of a lower rank in the social scale are justly visited with severer reprobation than the artful dodgers whom they train and encourage, so here we conceive the commercial community may properly show its blame of the practices acknowledged by the Messrs. BEHRENS. Can it not, we should ask, find some practical means of giving expression to its displeasure? The Jockey Club can exclude a black sheep from Newmarket, and we believe some of the societies of London merchants, holding their exchanges at the various coffee-houses, can keep their places of resort free from company they do not like. May not their example be imitated with advantage to the respectability of the Manchester Exchange? We only throw out the suggestion as offering one method of punishing offences against the ordinary rules of trade such as those we have been here con-

sidering."] After this publication the plaintiffs offered their books for examination by Mr. WILLIAMS, who wrote commercial articles for the paper, upon the condition that if he was satisfied that the transactions were correct, the editor should state this, and express regret for his error. The offer was not accepted, but Mr. BEHRENS was told that any letter he wrote in explanation would be inserted in the paper; and he did in fact write two letters which were published in the paper. The plaintiffs also offered to have the circumstances investigated by the Chamber of Commerce, and they further advertised, complaining of the false and calumnious charge made against them, and challenging investigation. Another meeting took place in bankruptcy, and on the 24th October the second libel was published. [This consisted of a comment upon the later circumstances, and the writer, in substance adhered to what he had said before, refusing to retract or apologise, and said that the plaintiffs might appeal to the law.]

A vast mass of evidence was laid before the jury, principally upon the question whether there was or not any impropriety in the dealings of the plaintiffs with Messrs. DALTON & HEAP, and the case occupied three entire days.

The jury, after considering the matter for a short time, found a verdict for the plaintiffs, damages £1000—thus pronouncing the dealings proper. Such may be English "commercial morality," but we believe the American article is judged by a higher standard.

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#### PROMISSORY NOTES MADE IN KENTUCKY AND PAYABLE IN NEW YORK.

We have received from a correspondent at Louisville, the following note of an important decision made there. (*MUHLING vs. LATTIER, &c.*, 111 METCALF'S Rep.)

Suit was brought on a writing in the form of a promissory note, drawn by the defendant, payable to the order of himself, and by him endorsed to plaintiffs. The writing was executed in this State, but is made payable and negotiable at the office of plaintiffs in the city of New York. Chief Justice STILES held, that the note or writing does not, of itself, impose any legal liability upon the makers in this State; it is not negotiable paper, and has none of the attributes of a bill of exchange. The utmost effect that can be given to it is, to admit it as evidence of previous indebtedness of the maker and endorser to the endorsee, when executed with the intent of binding the maker for the payment of such previous indebtedness and on account thereof. And, not then, unless it was averred that it was thus executed and delivered.

## MERCANTILE MISCELLANIES.

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1. AN EAST INDIAN COAL MINE. 2. FRENCH COAL. 3. THE SHORT POWER OF THE BRITISH NATION.

### AN EAST INDIAN COAL MINE.

DR. SAMUEL LILLY, Consul-General to India, has written a letter, descriptive of a coal mine which he visited, to his friends in the United States. The mines are in the Raneegunge coal field, which is tapped by the East India Railway, and in which, in 1860, there were 49 collieries in operation, the joint production whereof was 305,682 tons.

The following is a portion of the letter referred to above :

*Calcutta, March 14, 1862.*

"During my trip I visited the Bengal Company's coal mines at Raneegunge, some 180 miles northwest of this. The region is a hilly one, washed, or rather drained in the wet season by streams which are now nearly or quite dry. The surface is barren, except in the wet season, when, by securing the water in pools, some rice and a few vegetables are raised. The overlooking rock at the mines is a micaceous sandstone and quite soft. The opening I visited has been worked a number of years, and is entered by 130 steps cut in the rock, the overlying portion of which was taken off; in other words, instead of going down a tunnel or slope, as in your region in a car, we walked down an open staircase. The vein worked is about seven feet thick; the coal is bituminous in character, but no skill or science has as yet been able to coke it. The coal is hauled from the breasts, say where now worked, some three-fourths of a mile in a hand-car, and hoisted up in baskets perpendicularly by gins turned by women, or drawn up by steam by a chain working over a pulley and cylinder to the surface, when it is placed in railroad cars to be sent to market. The mines are perfectly dry, and even dusty. A gang of miners consists of ten persons, a portion of whom are women. These gangs mine 100 maunds each on an average. A maund is 80lbs. The miners work with bar and wedges, no powder being used. A very smart active miner will sometimes earn eight annas per diem, but many do not average more than one-fourth that sum, so that the pay is from six to twenty-four cents per diem for each person. All these are natives of course; and I am told by the superintendent, a very intelligent man, that it is impossible to introduce any improvements in mining. There are a number of collieries worked in this country, but the one I visited is almost the only one which pays dividends to the stockholders. This coal is used for steam and culinary purposes, and is sold in Calcutta for five to seven annas per pound, whilst English coals sell for nine annas.

I am told that some mines in the eastern portion of Bengal yield a coal similar to the Welsh semi-anthracite, but there being no facilities for getting it to market, save the uncertain one of rivers, which are nearly dry a large portion of the year, it does not pay to work them. Railways are being constructed and the country opened up, so that it is thought in a few years they will be brought into profitable use and the English coals driven entirely from the market. Iron, copper, &c., abound in some

regions, but as there is no limestone in convenient proximity, and the coals not being cokeable (I invent a term), they are not worked to advantage. All these defects are being remedied, and it is believed that a bright future is open to various metalurgic operations in India.

The railways are constructed very substantially and at great cost. The East India Railway which extends some 1,000 miles N. W. from here, is to be a portion of the line connecting Calcutta and Bombay. It is now open to Monghyr, 304 miles. I went to that place. The country through which it passes is a vast plain, traversed by some streams which are from one-half to one and one-half mile wide in the rains. The most of the masonry and the ballast of the road is formed of bricks. Near Monghyr there is an upheave of nearly pure flint rocks which crosses the plain; it is some 300 feet in height, and, as it is very abrupt in its margins, the road traverses it by a tunnel 900 feet in length. I did not learn the cost of making [the tunnel, but I did learn that two or three sets of contractors were ruined by it, and the Company finished it themselves. The engines and carriages are all in the English style, the former being built in England; all the material for the track is imported from there, to even the cross-ties and chairs."

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#### FRENCH COAL.

For many years the belief in France was that French coal was totally unsuitable for the steam engines of vessels, and in consequence, English alone was employed. But latterly the discovery has been made that the French coal can be employed to advantage, and the probability accordingly is that the English will be set aside. In a recent number of a newspaper of Lorient is this paragraph:—"French coal has completely replaced English in the Imperial navy. Our port receives every day considerable supplies from the mines of Loire; they are brought to Lorient by canals and rivers. Thus the problem which has been so long discussed as to the supply of the navy has been solved to the advantage of French coal, which can now, with some modification in the apparatus for burning, be substituted in all circumstances for the fuel which heretofore we have brought from England."

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#### THE SECRET POWER OF THE BRITISH NATION.

One of the representatives of the continental press at the International Exhibition, after wondering where the secret power of the British nation lies, traces it to their ravenous stomachs: "Deprive," says he, "an Englishman of his strong appetite; that enables him to digest bleeding meat or highly-spiced rounds of beef, and you deprive him of all incentive to action, if he be of Saxon race, for the descendants of the Normans are yet greedy of power. He does not care for society—he has no ambition to please—his indifference to glory is so great as to become contemptuous, and he scorns the artistic French and Italians as *dilletanti*, so insensible is he to the fine arts. He is without a spice of gallantry in his composition, for the most beautiful women in the world are grossly neglected for the club, the billiard-room, or the ring. Hunger is his great stimulant to activity, and appetite pushes on this extraordinary people to execute the most gigantic enterprises.

## THE BOOK TRADE.

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*The Tariff Question Considered in regard to the Policy of England and the interests of the United States ; with statistical and comparative tables.* By ERASTUS B. BIGELOW. LITTLE, BROWN & Co., Boston. D. APPLETON & Co., 443 Broadway, New York.

In these times of great excitement, when the "On to Richmond" furor absorbs so large a share of our dreams, both sleeping and waking, books with modest titles are not apt to receive proper attention. The author of this work, however, is so widely known as a skillful and successful inventor, and so well fitted by his own experience to discuss in an intelligent manner subjects affecting our manufacturing interests, that we trust an exception will be made in his favor. In regard to the general topic of free trade and protective tariffs, one would be inclined to think that little new could be said, and yet Mr. BIGELOW throws about his subject great interest, and backs up his arguments by elaborate and well prepared tables. The present, too, is a time when these questions are invested with additional importance, by reason of the late changes made in our revenue laws, and the peculiar position of our country. But we do not propose here to discuss these matters. We would refer our readers to this book for much that is interesting and valuable, whether they agree with the conclusions reached or not.

We subjoin the following, taken from the author's introductory notice, which will explain more fully the object and scope of the work :

"The vast and various commerce of Great Britain, and our own intimate relations with that commerce ; the general tone of British statesmen and of the British press in reference to the commercial regulations of other countries ; the zeal and pertinacity with which the free trade maxims and example of that great nation are commended to our adoption and imitation, not only by Englishmen, but by many among ourselves—all unite to give especial interest and importance to the policy of England in regard to the Tariff Question. To understand that policy, we must study its history, and learn in what circumstances and by what necessities it has been modified and developed. To ascertain how far and in what particulars the political and commercial economy of Great Britain can be safely taken as a guide to that of the United States, we must know and be able to compare the actual condition of the two countries in respect to their agriculture, manufactures, commerce, industry, and finance.

"To aid in such an investigation, and to furnish the basis of safe inference and argument, I have put into tabular form, in an appendix, the most important facts in the case. These tables are, for the most part, not mere copies or abstracts, but the result of labored and careful selection, comparison, and combination."

They present, it is believed, a mass of valuable statistics, essential to a right understanding of the Tariff Question, and nowhere else to be found in so accessible a form.

*Rifle Shots at Past and Passing Events.* A Poem in Three Cantos. Being Hits at Time on the Wing. By an Inhabitant of the Comet of 1861. Philadelphia: T. B. PETERSON & BROTHERS. Price twenty-five cents.

A thoroughly mysterious volume as to origin, but supposed by competent judges from the manner of shooting and failure to hit, to emanate from one of the deceased sportsmen of the Pickwick Club, possibly from the lamented Winkle himself. The



lifelong proclivity to bag game has been developed, by the extended opportunities of a freed spirit, into a wider ambition, still hampered however, as upon earth, with the most desperate luck.

*The Channings. A Domestic Novel of Real Life.* By Mrs. HENRY WOOD. Author of "The Earl's Heir," "East Lynne," &c., &c. Philadelphia: T. B. PETERSON & BROTHERS. Price, fifty cents.

We had occasion in one of our late numbers very briefly to mention "The Channings." A better acquaintance with the book, however, proves it worthy of a better notice, and we are always glad to render justice to merit of any kind. Hitherto we have not been especially pleased with Mrs. Wood's productions; while they contained much that was attractive they failed to awake any particular sympathy or approval. People who have never been murdered, poisoned or clandestinely married themselves, and who have no intimate friends who have suffered in that way, can hardly be expected to appreciate fictions founded solely upon these mild errors and their results. "The Channings" is of an altogether different stamp, and is decidedly superior to all of the other works of this authoress which we have yet seen. The plot is a quiet story of probabilities; the style agreeable and sprightly, and the moral excellent without being dull. Many of the characters are very good, especially Arthur, the Jenkinsons, and Roland Yorke, and the boys are thorough boys, and not stuffed roundabouts. A few more books like the "Channings" would deprive Mrs. Wood of the somewhat equivocal title of a sensation novelist, and would win her a wider and higher name.

1. *The Yellow Mask: or the Ghost in the Ball-Room.* By WILKIE COLLINS. Author of "The Woman in White," "The Dead Secret," &c. &c. Philadelphia: T. B. PETERSON & BROTHERS. Price, twenty-five cents.
2. *Sister Rose: or the Ominous Marriage.* By the Same. Price, twenty-five cents.
3. *The Stolen Mask: or the Mysterious Cash Box.* By the Same. Price, twenty-five cents.

The scenes of these three new books of WILKIE COLLINS, are laid in widely different localities. "The Yellow Mask" is a little Italian intrigue with a few dashes of priestcraft and artist-life. "Sister Rose" is a story of the days of the French Revolution, and painful as all such stories must be in a greater or less degree. "The Stolen Mask" is a tale of simple English life, hearty and genial, and in our judgment by far the most agreeable of the three.

*New American Cyclopædia: A Popular Dictionary of General Knowledge.* Edited by GEORGE RIPLEY and CHARLES A. DANA. Vol. Fifteenth. Spiritualism—Uzziah. New York: D. APPLETON & Co., 443 & 445 Broadway. London: 16 Little Britain. 1862.

A new volume of the Cyclopædia invariably receives our cordial welcome and close attention, because it is invariably worthy of it. The present one contains among many others, articles upon Steam, Stammering, Stereoscopes and Fort Sumter, upon the Telegraph, Telescopes, Thermometer, and Tides, besides innumerable biographical notices of eminent persons. Conspicuous among the latter are those of Madame de Stael, the two Stevensons, Sterne, Steele, Swedenborg, Swift, Talleyrand, Tasso, Thierry, Thorwaldsen, Titeall, De Toqueville, Turenne and Turner. As many of the best writers of the country are engaged upon this work, it is hardly necessary to add, that all the articles, embracing as they do, nearly every department of human knowledge, are treated in a scholarly and able manner.

THE  
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AND  
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# THE MERCHANTS' MAGAZINE

## AND COMMERCIAL REVIEW.

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NOVEMBER, 1862.
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OUR CITIES IN 1862 AND 1962.

CHICAGO AND TOLEDO.

BY J. W. S.

THE cities of this country have become what they are, chiefly, within the last fifty years and, almost entirely, within the past century. The sum total of the population of all of them, in 1762, was less than Chicago now possesses. With pride and exultation we look back on the growth of our cities, through the last century; with lively hope we anticipate a more glorious expansion during the century before us. In 1762, how imperfect were the instrumentalities of commerce, manufactures, and agriculture compared with those now in use. Will ours be so rude in the eyes of our successors of 1962? It is difficult to imagine so great an advance; and yet reason tells us it will be almost immeasurably greater. Who, in 1762, would have believed that the twenty thousand inhabitants of New York would grow to upwards of a million in 1862? Who, in 1762, would have been thought sane had he predicted the existence, in 1862, of a city on lake Michigan of over one hundred thousand inhabitants? Far more apparently incredible changes, in city growth, will be witnessed during the hundred years to come. China, with her inferior race of men and her greatly inferior instruments of production, has built up cities over her rich plains and valleys that embrace numbers nearly, if not quite, equal to all the other cities of the world. Our territory is scarcely less productive of the elements for the support of a great population than that of China. The natural productive powers of our continent of North America center about our great western lakes, and thither is flowing the migrating current of people more strongly than to any other part of the world. On the borders of these inland seas, therefore, we may expect a great concentration, in cities. The western extremities of lakes Erie, Michigan, and Superior are, evidently, the commanding commercial positions for the concentration of the commerce of the chain

of lakes from all quarters of the world. To these points, as they offer the best water way to the Atlantic and the best centers of distribution around the lake borders, will be directed the commerce of the North Pacific Ocean, in its passage across the continent. The productions of Eastern Asia and the North Pacific Islands, transported by the Pacific railway to the navigable waters of the Missouri, may reach these lake ports on steam propelled boats or steam drawn cars, and, there, meet and be exchanged for products brought from the shores of the Atlantic, in large steamers and by railroad. At present, and until a much larger capital is accumulated in the lake cities, this commerce of ocean with ocean will be carried on, chiefly, at New York. By the time the Pacific railroad is completed, there will be a great change in the ability of the lake cities to participate in the new commerce which it will create.

If the ocean commerce were alone considered, New York would be their best emporium. Foreign commerce is of great importance, but our domestic commerce is, almost immeasurably, more important. This can be carried on to better advantage in central positions of the continent than on its borders. The more central the position to the home productions to be interchanged, other advantages being equal, the better the location for domestic commerce. The center of population of the United States, and also of the U. S. embracing the Canadas, is in south-eastern Ohio. It is moving every year, in a line considerably north-of-west, about four miles, in the direction of the west end of lake Erie. The center of the productive capabilities of the continent, when well improved, will be as far in the interior as Chicago; probably many miles north-westward of that city. But as our commerce with the Atlantic borders, on both sides of the ocean, will, for a long time to come—probably for all time to come—be greater than with the countries on the Pacific, the center of industrial power will always be eastward of the center of population of our country. It will be quite within the limits of truth to assert that the home commerce of the continent is ten times greater than its commerce with all the world besides. The best position for the concentration of this home commerce, other things being equal, will, then, be worth ten times as much as the best position for external commerce. For the concentration of interior or home commerce, the best location will be the city nearest the center of industrial power, provided it has adequate channels for transport and other facilities for the healthful support of a large commerce and a large population. Such are the positions of Toledo and Chicago. Is it reasonable to anticipate for these young cities a very high destiny? Will it seem absurd to expect one or both to come up to the stature of great capitals, such as New York, London, and Paris, by the year 1962? We submit some facts which look in that direction. The tendency of the commerce of the great North American plain to center in the lake cities has been manifest from their commencement, and especially during the last fifteen years. The increase of population from 1850 to 1860 was—

|                                     |               |
|-------------------------------------|---------------|
| In Chicago.....                     | 265 per cent. |
| In Toledo.....                      | 260 “         |
| In our 10 largest lake cities.....  | 133 “         |
| “ “ river cities.....               | 65 “          |
| “ “ exterior tide-water cities..... | 53 “          |

Twenty years ago it was generally believed that our largest interior cities would grow up on the great interior rivers. Experience has since demonstrated that our interior commerce prefers to concentrate on the borders of our great lakes. It can no longer be doubted, by well informed persons, that these lakes will draw to their waters and concentrate in their cities a greater commerce than will the great interior rivers. The superior growth of the commerce and population of the chief cities of the lakes, from 1850 to 1860, proves this to have become the rule of the past. The increase of population of the ten largest lake cities, as the foregoing table shows, was more than twice as rapid as that of the ten largest river cities. The proportionate increase of their commerce was much greater. Of the ten largest lake cities, Chicago and Toledo exhibit much the most rapid growth in commerce and population—the former having gained 265 per cent and the latter 260 per cent. These cities having the most commanding positions are to be the future rivals for leadership. Each has great and peculiar claims to become, one day, the great city of the lakes. It will, probably, be long before it is settled which has the best position for concentrating a great commerce. Toledo has, at present, not more than one-seventh the number of inhabitants in Chicago. This places her at great disadvantage in the start. Can it be overcome? Philadelphia was, once, much more populous and wealthy than New York. Business and wealth change the field of their operations, in our day, more readily than many years ago. People change their places of residence with much more ease and less reluctance than formerly. The whole human race is becoming mobile. We may, therefore, put less stress on the advantage of greater size. The best *natural* position for becoming the great city of the lakes, within the next hundred years, is believed to belong to Toledo. Artificial channels of trade, already in use, are not wanting, and it is but reasonable to expect they will be multiplied to meet the exigencies of its growing commerce. Has Toledo the better natural position? Let us, with candor, enumerate the peculiar advantages of each. Toledo is nearer to the British provinces north and northeast of the lakes and much more convenient for the exchange of the exportable products of these provinces, transported by water or by land, for the exportable products of the interior States west and southwest of Toledo and Chicago. These provinces now contain some three millions and-a-half of people, and increase nearly as fast as the Northwestern States. Their numbers increasing at the same rate as that of all the States of our Union, since 1790, would become upwards of seventy millions in one hundred years. Whether incorporated with us or constituted an independent nation, these provinces will form an important part of our commercial world. The natural resources of this extensive region are very great and will be developed into immense wealth by the intelligent and active race who are filling it with people.

Proximity, facility of access in time and cost, other things being equal, will determine the preference of one commercial position over another. The British provinces of the North constitute but a small portion of the commercial world that is nearer to Toledo than to Chicago, and, so should prefer it, as a place of resort, for the interchange of its commodities. By drawing, on the map, a line of equal distance between the two cities it will be seen that, eastward of that line, there exists, and for a long time there must continue to exist, a great preponderance of population and

wealth over the region westward of that line. This dividing line will give Toledo the lower portions of lakes Superior and Michigan, and, in its course southward, will pass through South Bend and Indianapolis, west of Louisville, and meet the gulf near Pensacola. If the commerce of North America be alone considered, there is scarcely room for doubt that Toledo is the more favorable point for its present concentration. There is not only much more population east of the line, but it possesses, in proportion to numbers, much greater wealth-producing power. How will the balance stand when half the century, allowed for the race between these cities, shall have passed? The United States and British provinces will then contain over one hundred millions of people. Will the center of their commercial power then be nearer Chicago than Toledo? Clearly not. The probability is that the greater portion of the hundred millions will live east of the line of equal distance; and there cannot be a doubt that the preponderance of wealth and resources, in proportion to numbers, will be on the Toledo side. The available channels of commerce of both cities are now ample for the present condition of the country; and it may be safely assumed that they will be improved and increased as rapidly on the Toledo as on the Chicago side of the line. Will the center of commercial power of the continent, before the end of a century, be west of the line of equal distance between Chicago and Toledo? It is probable that the center of population will reach that line, and quite possible that it may, in its westward movement, reach and pass Chicago. But, the center of population and the center of commercial power are quite distinct and, often, distant from each other. Our calculations, intended to show the future center of the *commercial power* of our continent, must embrace the whole commercial world. We must also estimate, approximately, as well as we can, the relative commercial value of the different populations in North America and beyond it. This value will depend, chiefly, on *proximity, industry, capital, and enterprise*. *Proximity*, near neighborhood, has much to do with the number and amount of commercial transactions of every community. Persons of different occupations, in a city, within a few doors of each other, on the same block, on the same side of the street, on the same street, in the same quarter of the city make more exchanges, buy and sell more with each other, other things being equal, than with people more remote or more difficult of access. Whatever can be procured in the city of one's residence will be bought there rather than in the next city; and the city near at hand will be called on to supply what the city of our residence cannot so well furnish, in preference to a city more distant. It is probable that the people of the city of New York, with its immediate dependencies, numbering a million and-a-quarter, carry on more commerce with each other and with the rest of the world, in number of transactions and in amount of values, than any five millions in the valley of the Mississippi. The advantages of easy co-operation in industrial pursuits, which proximity confers, constitute an essential element in the growth of cities which prosper by virtue of natural advantages. Toledo therefore, being nearer the chief centers of industrial power of North America and the world, may be expected to have more commercial transactions, other advantages being equal, than Chicago.

The numerical preponderance of the country nearer Toledo does not fully represent its comparative industrial ability. The industry of the

Northern Atlantic and the Eastern Lake States is much more developed and varied, and, in consequence, more productive of articles which sustain commerce than is the industry of the country nearer Chicago.

*Accumulated capital* is an important element in any calculation for fixing the center of commercial power. At present, most of the available capital of the world is on the Toledo side of the line. Northwestern Europe and the eastern portion of our Republic are the chief points of accumulation from which it flows along the large channels of trade towards the most promising seats of western commerce. Much of the surplus capital on the other side of the Atlantic, beyond what is wanted for home use, is, with more or less constancy, brought to the United States and provinces north of us for investment. In its westward course, after supplying the cities east of the lakes, it flows over, in smaller streams, into our lake and river cities. The western cities first reached, other things being equal, will have the preference for its lodgement. It has had an important agency in the building up of Buffalo, Erie, Cleveland, Detroit, Toledo, Chicago, Milwaukee, Cincinnati, St. Louis, and other lake and river cities. Much of this capital has come in the pockets of immigrants, who have also added to the growth of these cities by their labor and skill even more than by their money. The accretions to the lake cities from this source naturally fall, in largest measure, into those nearest the source of supply. New York being the principal place of debarkation, most of the immigrants, in their progress westward, take the New York channels—canals and railroads. To be situated on the principal route of a large immigration is now, as it ever has been, a great advantage to cities. Witness the growth of cities along the Erie Canal, when that was the principal thoroughfare of our migrating people westward. Trace the line of immigration through Bremen, Havre, and Liverpool, New York, Albany, Buffalo, Cleveland, Toledo, Detroit, Chicago, Milwaukee, and thence westward, and you will not fail to perceive how fruitifying are the constant accretions, by the way, which this steady current of migration produces. This swelling tide of human beings has been checked for a season only, to break over its barriers and flow in a larger and fuller current in the future. This will be hastened and heightened by the effect of the late law of Congress donating land to settlers on the public domain. A fair estimate of the industrial character of the inhabitants about these cities may be predicated on the character of the country in which they are located respectively. Toledo is surrounded, to a large extent, by a timbered region of such great fertility as to be inviting only to the most healthy and resolute agriculturists as settlers. Lazy or irresolute pioneers will not encounter the labor needed to subdue the dense forest. Only bold hearts and strong arms are equal to the task of converting the forest into smiling meadows, wheat fields, and orchards. But, when the forest is subdued, not only will these fields be more certain of a profitable return, in large crops; but the strong hearts and arms will be there to add good houses and barns, orchards and roads, and to do whatever else is needful to build up a civilized society. This resolute population will be just in the place where the best returns for the most various cultivation may be expected to result. It is, in climate, the best fruit-growing section of the great interior plain; and, in adaptation of soil, it is equal to the best. A dense as well as an industrious population will result, giving a decided advantage to Toledo.



Chicago is bounded, on the south side, for many miles, by a flat prairie, not adapted to fruit growing, and very bleak and uninviting to the small farmer. Well drained, it will produce good crops of corn, oats, and grass when the season is not very wet or very dry. For winter wheat and for grass it is quite inferior to land of like fertility cleared from the forest, and less certain in unfavorable seasons to produce good summer crops. These objections apply, chiefly, to the flat prairies near Chicago; but, with less force, they are applicable also to the rolling prairies at a greater distance. The advantages to the former, of timber land, cannot be duly appreciated without experience of their privation. Fuel, fences, buildings, repairs of tools, protection from the wintry blasts and summer heats—these come up in the mind of the settler with great force. But, the superiority of the wooded region, and especially that about the west end of lake Erie, for fruit growing, should give it an unhesitating preference over the prairie countries by every intelligent seeker for the best place for cultivating fruit. There are but small portions of the settled parts of our extensive country in which a crop of the best fruits of a temperate climate can be relied on with reasonable certainty from year to year. Among these may be unhesitatingly placed the southwestern borders of lake Erie. In spring, the cool winds from the thawing ice keep back vegetation so as, usually, to save fruit buds from killing frosts. The autumn frosts are likewise delayed, near the lake waters, giving time for late-ripening fruits to mature, and for wood and fruit buds to mature so as to perfect their growth and round out the year of vegetable life.

An improvement, long contemplated as a possible exploit of a future generation, may have the effect to give to Toledo commercial advantages above and beyond those of Chicago. A large canal across the base of the peninsula of Michigan, to connect the navigable waters of lakes Erie and Michigan, is among the possible achievements of the future. Surveys have proved its practicability. The only summit level is less than four hundred feet above the lakes. Such canal carried westward down the Hankakee or Calumet valley, to connect with the enlarged Illinois Canal, would give the best practicable water channel of commerce between Lake Erie and the center of commerce of the Mississippi valley, at St. Louis. The distance by this route, as compared with that by way of Chicago, lakes Michigan, Huron, and St. Clair, would be shortened about four hundred and fifty miles, avoiding much risk and some delay. Early in Spring and late in Autumn, it would be likely to take the place of the lake routes, to a great extent. On articles of high value in proportion to weight, the saving of insurance would be equal to a fair freight charge. If, in addition to the improvement of the Illinois River, as recommended to Congress, fitting it for the passage of river and lake steamers, a short canal of equal capacity to the contemplated enlarged Illinois Canal were constructed, to connect its navigation with that of the upper Mississippi, at the mouth of Rock River, a great extension of easy commercial intercourse, by water, between the Mississippi basin and the lake basin, would be effected. Commercially, the Mississippi at Rock Island, would be turned from its natural course and flow eastward into the great lakes at Chicago and Toledo. By the improvement of the Illinois River to the entrance of the canals, from the East, the Missouri River will be turned, commercially, northeastward into the same channel. The instrumentalities to be used in the navigation of the canals, rivers, and lakes,

will certainly be much superior to those now in use. Whether it shall be a greatly improved steam engine that shall furnish the motive power, or some new instrument to supersede, by its superiority, this instrument, we can only conjecture. That canals are again to be in fashion, that a counter revolution in their favor is now in progress, seems evident. Such canals, too, we may anticipate, will be constructed as shall be adapted to the increased power of man to overcome the opposing forces of nature. Our central plain especially invites the introduction of canals to connect the great water highway of commerce given it, in the chain of great lakes and the Missouri-Mississippi family of rivers. In their flow, these great channels approach each other near their central portions, only to discharge their waters at widely divergent points, on different sides of the continent; one pointing the way towards the central commerce of Europe; and the other, in the direction of the central sea of America, where the commerce of the tropics—the west coast of America and the east coast of Asia—naturally meets. Enterprising man is here offered a great reward for the exercise of his best powers to unite into one these two great national highroads of commerce, by canals, adequate to the accommodation of the best vessels adapted to the navigation of the lakes and the rivers; such adaptation, ultimately, perhaps, to be made to embrace ocean navigation also. The great national railway from the central plain to the Pacific, will have much efficiency added to its commercial power, by meeting, in the middle of the continent, cheap water transportation eastward. Is it objected that canals adapted to large vessels and the use of steam power, made to connect the waters of lakes Erie and Michigan with those of the Mississippi-Missouri, is a work requiring immense labor and must cost many millions of dollars? All the more should we covet the glory and reward for overcoming these obstacles; all the more shall we strengthen ourselves, by the exertions called for, to accomplish the great work. Holland, with much less means, made herself great and strong by the construction and use of her immense works of excavation and embankment; her canals and sea walls.

Without the construction of these navigable channels between the great lakes and the great interior rivers, the connection of our continental commerce is but partial, unfinished, incomplete. It seems probable that Toledo would derive more benefit from the construction of such canals than Chicago. The enlargement of the Miami and Erie Canal, between Toledo and Cincinnati, and of the Wabash and Erie westward of its junction with the large canal above mentioned, would enure to the special benefit of Toledo, while the great lines westward from the head of the lakes, on which they are situated, would probably be equally beneficial to both cities. Chicago has the great advantage of a present population seven or eight times as numerous as that of Toledo. The causes of this superiority have nearly spent their force, so that, from 1850 to 1860, the percentage of increases, as has been shown, was nearly identical. A city of 120,000 has great resources, in itself, not possessed by one of 16,000. It is a start in the race, the benefit of which will probably be lasting and difficult to balance by others less positive of the smaller competitor. Chicago has a more extended and complete system of railroads radiating from it. This advantage is but temporary. It has the advantage of being nearer and more accessible to the central point of the interior river system of navigation. This advantage may be overcome and perhaps be

turned against it by a ship canal from Toledo to the Illinois Canal, such as is advocated in this article. But such ship canal will, probably, only come after many years of enjoyment, by Chicago, of a large canal connecting the navigation of the lakes with the Mississippi waters. In facilities for the manufacture and distribution of articles, to be needed and used by a great surrounding population industrious, intelligent, and progressive, the two cities seem to possess nearly equal advantages. Both will be supplied with raw materials of manufacture, such as crude iron, copper, and other useful metals, wool, cotton, hemp, flax, &c., at a small advance of price above the cost of production. Both will be supplied with coal in like manner; each being near the inexhaustible coal beds of Michigan and Illinois. In water power and cheap timber Toledo has the advantage, and may, therefore, claim, to lead in the manufacture of articles chiefly made of wood: vessels, boats, furniture, wagons, &c. For the construction of quays, houses, &c., of wood, Toledo is the best place; but, for buildings of stone, brick, iron, the advantages are nearly balanced, both having ample resources for that object. The cost of living will not be materially different. The dweller in Chicago will buy his meat at less cost, but he will have to give more for fruits and most foreign products. Also for the best products of the dairy. The cost of the water supply will probably be less in Toledo, as it now stands ready for use in the large canal forty-nine feet higher than the water of the harbor; the source of supply being little less than the entire flow of the Maumee River. Artesian wells of about one hundred feet in depth offer excellent water, above and near the surface, all over the city and surrounding country. Toledo has special merits not possessed by Chicago: 1st, In the shape and elevation of the ground on which it is being built. The average elevation of its site within the corporate limits is not less than forty-five feet above the harbor. Its surface is varied, rising from ten feet above high water to upwards of fifty feet, thus affording facilities for good drainage. 2d, In the breadth, capacity, and easy access of its harbor. This may be described as five miles long by nearly half a mile wide, having two sides of a diamond shaped parallelogram, and having a depth of from fifteen to thirty-five feet. It is formed by the estuary of the Maumee River, one of the largest streams flowing into the lakes, having a drainage of about 8,000 square miles. The entrance of the harbor, through the bay of the same name, is easy and safe in all kinds of weather. 3d, In the concentration of all the railroads and canals at one place near the center of the city, and in such a manner as in no way to interfere with the use of streets. The railways nowhere cross a city street on grade, and the canals and other navigable channels do not interfere, necessarily, but in one or two places with the uninterrupted use of streets. An unnecessary and useless side canal, passing through a portion of the city and standing almost unused, will probably be filled up soon, and thus free the streets which it crosses from its obstruction.

These special merits of Toledo contrast with the low, level site; the narrow, long, and crooked harbor of difficult entrance in a storm; the numerous impediments in the streets, caused by ferries and draw-bridges; the railway tracks on grade; and the scattered termini of railroads of Chicago. The superiority of Toledo for good drainage, and the strong current of a large river favorable to a speedy removal of filth thrown into it by the sewers, may be relied on, to some extent, to make it more healthy than Chicago.

One hundred years! What may not we hope of development on our continent, in our country, within this period; long, if measured by the ordinary duration of human life, short, compared with the life of nations, and very short in comparison with the life of the human race. Looking back one hundred years, we find that some four millions, at the commencement of the century, inhabiting the then British colonies of North America, have increased to upwards of thirty-five millions. The city of New York was, then, about the present size of Toledo, with a commerce less than one-fifth of that now centering in this recent city. All the cities of the colonies, then, aggregated a less population than is embraced in the new city of Chicago. The general population has increased nearly ten-fold, and the city population more than thirty-fold. Our wealth and resources have increased in a still larger proportion than our cities. One hundred years to come, with the command of steam, electricity, and we know not what other and superior agencies for wonder working, can scarcely fail to produce results of a magnitude and variety far beyond and above the conceptions of the most gifted and the best instructed imagination of our time. The cities of Western Europe and Eastern Asia are grand productions of human society, but they will be deemed rude and small, in comparison with the vast capitals which, in the period of one hundred years, will grow up on our continent.

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#### TRADE AND COMMERCE OF SICILY.

Attention has been recently called to the productive powers of the beautiful island of Sicily by the publication—ordered by the House of Commons—of the report of the British consul there, from which we glean some instructive statistics respecting that new appanage of the crown of Italy. The population is stated to be two millions and a half. In 1860 the commerce of Sicily was a little more than £5,000,000, and in the following year it increased to upwards of £6,000,000. It appears, nevertheless, that while the trade between France and Sicily has increased, there has been a decrease in the trade with England and America; that with France having risen from £920,000 to £1,360,000, while British trade has declined from £2,270,000 to £1,700,000, and the trade with America has slightly fallen off. Mr. GOODWIN shows that the American trade with the island in 1860 represented £540,000, and in 1861 £514,000, not a serious decrease, considering the present position of transatlantic affairs. The consul winds up his report respecting the resources of this celebrated island in the following glowing terms: "The King of Italy possesses, in the position of Sicily, the fertility of its soil, and the richness of its veins, a permanent source of wealth which, wisely administered, would not fail to raise Sicily shortly to unexampled prosperity. It rests with VICTOR EMMANUEL to make Sicily the greatest exporter in Southern Europe of raw and prepared produce, by carrying out the already adopted principles of free trade to their full extent in all branches of industry." When Italy becomes settled the development of Sicily will commence—an event in all probability not far distant.

### THE COTTON QUESTION—THE SUPPLY—A SUBSTITUTE.

THE great distress experienced in the manufacturing districts of England and France may be said now to have reached a point from which improvement and gradual relief can be anticipated. We would not be understood to say that there is soon to be an abundance of cotton again on the market, but only that the worst phase of the present crisis is passed. Proof of this will be found in these two facts: 1. That the consumption has been so reduced as to be less than the supply, and we may therefore look for an increase of stock. 2. Every month must increase the productivity of the new sources of supply now in course of development.

As to the supply, the following table of the movement of the stock at Liverpool since July 1st, with the corresponding periods of 1860 and 1861, is of interest in this connection, showing, as it does, that there is even now a rally in the amount on hand:

| Stock,           | 1862.   | 1861.     | 1860.     |
|------------------|---------|-----------|-----------|
| July 4.....bales | 184,940 | 1,108,300 | 1,298,490 |
| " 11.....        | 156,980 | 1,101,730 | 1,227,990 |
| " 18.....        | 155,490 | 1,053,710 | 1,287,520 |
| " 25.....        | 171,430 | 1,001,090 | 1,283,230 |
| Aug. 2.....      | 161,500 | 1,019,100 | 1,241,370 |
| " 9.....         | 158,750 | 989,940   | 1,203,740 |
| " 16.....        | 125,310 | 944,360   | 1,157,590 |
| " 23.....        | 82,420  | 912,130   | 1,128,210 |
| " 30.....        | 62,980  | 887,120   | 1,093,200 |
| Sept. 5.....     | 58,150  | 886,680   | 1,022,370 |
| " 12.....        | 92,330  | 868,260   | 941,810   |

In addition to this amount now on hand, it is estimated that from 500,000 to 600,000 bales are expected to come to hand before the close of the year. At the same time, the consumption in Great Britain has been reduced to a weekly average of from 20,000 to 25,000 bales, as compared with a weekly average of 46,240 bales last year, while the export has been reduced to 8,740 bales per week.\* Hence, if these estimates hold good, and they are made by the best authorities, there must be an increase of

\* This reduction in exports did not take place till September. Prior to that date the amount was wonderfully large considering the high price. The following table shows the weekly export for the first eight months of 1862, compared with 1859, 1860, and 1861:

|                                 | Weekly home<br>consumption. | Weekly<br>export. |
|---------------------------------|-----------------------------|-------------------|
| 1859.....bales                  | 44,000                      | 8,400             |
| 1860.....                       | 50,600                      | 11,700            |
| 1861.....                       | 48,800                      | 13,000            |
| First eight months of 1862..... | 28,200                      | 12,000            |

stock at Liverpool the next three months. We trust, therefore, that we have seen the worst of this cotton famine.

As to the efforts now being made to find a substitute for this remarkable staple, we have but little faith in their success, and yet such an event of course is not impossible. England is at the present time agitating this question earnestly, and if a will can always find a way, we may be hopeful. We do not propose at this time to discuss these various new undertakings, but merely to call attention to the following, showing the nature of the most of them :

1. It may be remembered that some years since, Chevalier CLAUSSEN—who we regret to learn is now in a lunatic asylum—patented a number of schemes for improving the preparation and bleaching of flax, among which was one for cutting up the fiber into fitting lengths for manufacture on cotton machinery. The material, thus prepared, was tried by several manufacturers, but it never succeeded in making its way into general consumption, or even into general publicity. Whether, however, its failure was owing to its inherent unsuitability for the purpose intended, or to the fact that, as cotton was then tolerably abundant, it could not compete with it in price, we are unable to state positively. Probably the former; for even during the recent scarcity of cotton we have heard of no attempts to revive the Chevalier's invention.

2. *Flax waste*, however—the short fibers of that article which are unfitted for the linen manufacturer, and which are separated from the longer ones in the early processes—is capable of being mixed with either Orleans or Surat cotton in the proportion of one-fourth or one-third; and as far as it goes has been, and is now being, used for this purpose with advantage and without impairing the value of the fabric. But as the quantity available is of course only limited, any general demand for it would so raise the price as to make it no longer profitable. It is a resource for individual manufacturers, therefore, but scarcely for the trade generally.

3. *Jute*—a species of hemp, which already goes to England in great quantities, and the growth of which in India might be increased to almost any extent, and which could be supplied at a reasonable rate—is looked to with much hope by many, and Mr. THOMPSON has recently effected and registered in England some improvements in the preparation of it, which it is hoped may render it capable of manipulation on cotton machinery. The article produced is promising, but at present it is long and somewhat coarse in fiber, and appears more similar to, and more fit for mixing with, wool than cotton. It may possibly in time be adapted for cotton machinery, but is not so yet.

4. In the United States there is a patent in operation for making flax fiber at once into a substitute for cotton; but it is, we believe, a rude substance and not superior, for practical use, to the waste flax already mentioned. It needs, moreover, thirty or forty per cent of American cotton to work with it.

5. A Frenchman has invented or discovered a very neat article, which is reported to be promising. He has forwarded samples to Manchester, on the faith of which a large order was sent him, which, however, he declined to execute. It seems probable, therefore, that the article is not one which, at present at least, can be furnished in adequate quantities. Moreover, he

declines to tell his secret without very handsome preliminary remuneration.

6. *China grass* is said also to offer a very promising substitute, not unlike Manilla hemp, but its working qualities have not yet been experimentally ascertained. Like all the other fibrous materials yet proposed, it can, we understand, only be worked in conjunction with a large proportion of real cotton. Moreover, this and all the other materials yet suggested, flax included, are *woody* fibre, and as such essentially and incurably different in nature from cotton, and devoid both of the elasticity and the smoothness which render it so valuable. They may, therefore, cheapen linen or woollen goods, but can scarcely supersede or supplement cotton.

7. The latter part of September a gentleman of the name of HARBEN explained to a party of competent manufacturers in Manchester his plan for meeting the want of cotton. This consisted of the adaptation to machinery of the fibres of a sea plant called *Zostera Marina*, found in large quantities on the coast in many parts of the Kingdom. In fact it is a very common ribin-like substance, usually regarded as a sort of sea weed, though said to belong to a different class botanically. It is said to have been already applied with some success to the manufacture of paper. The specimens of the article, however, which Mr. HARBEN submitted to the committee of investigation were so exceedingly scanty and inadequate, that it was impossible for those who examined them to form any opinion from them of the suitability or availability of the material; nor had Mr. HARBEN made any experiments with it to ascertain whether it could be made fit for spinning on cotton machinery; nor was he prepared with any calculations of the cost at which it could be furnished in a workable state. Under these circumstances, of course, it would be premature either to pronounce respecting it, or, we fear, to hope much from it.

8. A client of the Messrs. PHILIPS of London announces the *invention* of a substitute, as stated in the last number of the *Merchants' Magazine*; but the nature of it has not yet been made public.

9. A plant called the *conserva bullosa*, or craw silk, has also been proposed. In LIGHTFOOT's *Flora Scotica* the following account is given of the uses of the *conserva bullosa*: "It is of soft substance, and in pure water, where the threads grow long, resembles tow. But in muddy water, where they are short, it is not unlike cotton; which, being carefully collected and dried, turns whitish, and has (according to DILLENIUS, WEISS, HALLER, BOMARE, WITHERING, and other authorities,) been used instead of cotton." It may be met with in great abundance in almost every ditch and pool, especially old clay pits and slow streams. In cold weather it is always below the surface of the water, and forms a mass of yellowish green fibers, very fine, and interlacing each other in every direction. In summer it rises to the surface in large fleece-like masses, commonly of a deep green color, and a spongy texture. If raked out of the water, and exposed for a few days to the sun, it loses its green color and becomes bleached.

The above embrace about all the substitutes as yet proposed. Time alone can determine their value. This list forms an important part of the commercial history of the times.

## JOURNAL OF MERCANTILE LAW.

1. AUCTIONEER—CONTRACT WITH BIDDER—HOW FAR AUCTIONEER IS BOUND TO ACCEPT ALL BIDS INDISCRIMINATELY. 2. TRANSFER OF PROPERTY IN A SHIP. 3. WHAT IS SUFFICIENT EVIDENCE OF THE CAUSE OF DAMAGE TO CARGO. 4. THE PETROLEUM OIL ACT OF ENGLAND.

AUCTIONEER—CONTRACT WITH BIDDER—HOW FAR AUCTIONEER IS BOUND TO ACCEPT ALL BIDS INDISCRIMINATELY.

We find reported in the *Law Journal* of Canada the case of *HOLDER vs. JACKSON*, in which the court holds that an auctioneer is not bound to accept all bids, as a matter of course, from persons present at his auction; and that, therefore, an action will not lie for refusing to accept such bids unless by reason of some special conditions or terms of the sale.

The facts of the case, and opinion of the court, were in substance as follows:

The action was brought by the bidder for damages. The declaration charged the defendant with wrongfully, maliciously, and without reasonable or just cause refusing to accept plaintiff's biddings at an auction for articles offered for sale, when the plaintiff had already been the highest bidder for, and had certain other articles knocked down to him as the purchaser thereof. The inducement laid was that plaintiff was in the habit of buying at auction for himself and on commission for other persons, (not averring notice thereof to defendant.) That defendant, as an auctioneer, was holding a sale at public auction on the following conditions: every article to be taken as it may turn out to be good, bad, or indifferent; any lot in dispute at the time of being adjudged to be resold to the highest bidder. Terms of payment, cash, prior to the goods being removed or delivered, which was to take place after the sale was closed. Any articles remaining unsettled for agreeably to the terms of sale to be resold on account and risk of the purchaser. Persons purchasing to the extent of £50 or upwards, can have a credit of three months, by furnishing approved endorsed notes. Plaintiff did not assert that he was the highest bidder for any article which was not adjudged to him, but that the refusal of his bids prevented his becoming the highest bidder. Nor did he aver that he purchased some articles with intent to buy others, enough together to amount to £50; so that defendant's refusal to accept subsequent bids prevented this, whereby he was obliged to pay cash for what he did buy. This, we say, the plaintiff did not state; but his claim rested on the assumption that an auctioneer at a public sale must receive the bidding or offer of any and every person present, and does a wrong to any person whose bidding or offer he declines to notice and receive.

The judge said that he could understand that possibly an auctioneer may do a wrong to a seller by refusing bids. As he is agent for the seller *ab initio* he has the right to settle not merely the terms of sale, but to regulate the biddings; as for example, to say he will not receive any bid which does not advance a given sum upon the last preceding bid. He is under no contract with the intending purchasers, unless it arises



from the expressed terms or conditions of sale, until by accepting their bids he becomes bound to complete the sale according to those conditions. As, in case his conditions state the sale to be without reserve, he is bound by a contract to sell to the highest bidder who is not the owner or agent for the owner. A bid, therefore, by or on behalf of his principal is contrary to the contract to sell *without reserve*, and the auctioneer cannot receive it to the prejudice of the last preceding bidder. *WARLOW vs. HARRISON*, (5 Jur. N. S. 313, and 6 Jur. N. S. 66.)

But in a sale such as it is stated in this count, I do not understand on what ground any person can claim as a right to be allowed to bid—to offer to become a purchaser. It will be going beyond any authority I have seen to hold, that by holding an auction under such circumstances there is an implied duty or contract to deal with any person who presents himself, and that the auctioneer, with due regard to his responsibilities to his principals has not a right to refuse to deal with any particular person. The principal might refuse from mere caprice to sell to A, B, or C, and might direct the auctioneer to refuse to sell to certain parties, and I can see no reason why the auctioneer (the agent) is bound by law to accept offers or bids, any more than his principal would be. There are no special circumstances shown to prevent his exercising a discretion, which may be very necessary under circumstances easy to imagine.

The court, therefore, gave judgment for defendant.

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#### TRANSFER OF PROPERTY IN A SHIP.

The Statute of Registration provides, that, "in every case of sale or transfer, there shall be some instrument in writing, in the nature of a bill of sale, which shall recite at length the said certificate; otherwise the said ship or vessel shall be incapable of being registered anew." It follows, therefore, that a merely oral transfer, although for valuable consideration, and followed by possession, gives the transferee no right to claim a new register setting forth his ownership. But this is all. There is nothing in this statute to prevent the property from passing to and vesting in such transferee. It is, however, unquestionably a principle of the maritime law generally, that property in a ship should pass by a written instrument. And as this principle seems to be adopted by the statute, the courts have sometimes almost denied the validity of a merely parol transfer. The weight of authority and of reason is, however, undoubtedly in favor of the conclusion stated by Judge STORY, that "the registry acts have not, in any degree, changed the common law as to the manner of transferring this species of property." It would follow, therefore, that such transfer would be valid, and would pass the property.

The English registry act provides, that "when the property in any ship, or in any part thereof, shall, after registry, be sold, the same shall be transferred by bill of sale, or other instrument in writing, containing a recital of the certificate of registry, or the principal contents thereof; otherwise, such transfer shall not be valid or effectual for any purpose whatever, either in law or in equity." Our registry act contained no such provision. Perhaps this important omission arose from a doubt whether legislating concerning the transfer of ships at home, as property, could be considered as a regulation of commerce; for if not, it was not within their constitutional power.

In 1850, Congress, however, passed an act, "to provide for recording the conveyances of vessels, and for other purposes." By this statute it was provided "that no bill of sale, mortgage, hypothecation, or conveyance of any vessel or part of any vessel of the United States, shall be valid against any person other than the grantor or mortgagor, his heirs and devisees, and persons having actual notice thereof; unless such bill of sale, mortgage, hypothecation, or conveyance be recorded in the office of the collector of the customs where such vessel is registered or enrolled." Then follows an exception in favor of liens by bottomry, and in subsequent sections are provisions for recording by the collector, and giving certificates, &c.

This statute has no effect, that we perceive, upon oral transfers, excepting that, as they cannot be recorded, their operation is limited to the grantors and those who have actual notice. Where the transfer is by bill of sale, the record of this, under the late statute, is, perhaps, notice to all the world. But in most of our States there are already provisions for the record of mortgages of personal property, and it may be a difficult question how these are affected by this statute of the United States. For example, if there be such a record as is required by the State law, is this sufficient, without a custom-house record, either because it is a public notice, which is the equivalent of actual notice to everybody, or because the State has the right to regulate this matter; or, if there be a record in the custom-house and none which conforms to the State requirements, is this sufficient against all the world? If we suppose this statute to be constitutional, of which we do not, however, feel certain, we should say that it controlled and superseded the State statute, so as to make that unnecessary and ineffectual; and therefore a record in the custom-house only would be sufficient, and a record under the State law would affect only those who had actual knowledge of it.

As a ship is a chattel, a transfer of it should be accompanied by a delivery of possession. Actual delivery is sometimes impossible where a ship is at sea; and perhaps the statute of 1850 makes the record of the transfer equivalent to change of possession. If there be no record, possession should be taken as soon as possible; and prudence would still require the same course, we think, in case of transfer by writing and record.

There have been cases which have been supposed to intimate that, as between two innocent purchasers, he that gets actual possession first completes his title as against the other. We doubt the correctness of this in all cases. We say rather, that if A becomes in good faith the purchaser of a vessel, and has taken *constructive* possession, (as by having a bill of sale indorsed on the register and recorded in the custom-house, and taking an order to the master or other person in possession to deliver her up,) he has no right to delay unnecessarily the taking *actual* possession, for this may deceive and injure other persons. And if B, a second purchaser, in ignorance of the first purchase, during such delay or neglect gets actual possession, he would hold the vessel; unless, indeed, prevented by the record. But if B gets actual possession before A, but while A was so prevented that his want of actual possession cannot be imputed to him as neglect, A will get a better title than B, if he (A) takes actual possession as soon as he can.

By the word "ship," and still more by the phrase "ship and her appurtenances," or "apparel," or "furniture," everything would pass which was distinctly connected with the ship, and is on board of her, and fastened to

her if that be usual, and needed for her navigation or for her safety. Kentledge, a valuable kind of permanent ballast, has been held to pass with the ship; so have a rudder and cordage prepared for a vessel, but not yet attached to her, and not quite finished; and so would a boat, anchors, &c., generally. But the answer to the question, What is part of the ship? must always depend somewhat upon the words of the instrument, and upon the circumstances of the case and the intention of the parties.

Sometimes, when a ship is built, she is paid for in instalments. If these are regulated by the progress in building, so that, when so much is done, a sum deemed equivalent to the labor and materials used shall be paid, and when more is done, another sum in due proportion, and so on, it is held that each payment purchases the ship as she lies; and if she be lost after any such payments, the loss is the loss of the purchaser. But if paid for, so much down, and so much at a certain time, so much at another, &c., without reference to the state of the ship at these times, these are only payments on account, and the ship does not belong to the purchaser until completed and delivered.

A sale by the decree of any regular court of admiralty, with due notice to all parties, and with proper precautions to protect the interests of all, and guard against fraud or precipitancy, would undoubtedly be acknowledged by courts of admiralty of every other nation as transferring the property effectually.—(*Laws of Business for Business Men*, page 273.)

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#### WHAT IS SUFFICIENT EVIDENCE OF THE CAUSE OF DAMAGE TO CARGO.

*The Mercantile Gazette* of San Francisco says:

"A decision of some importance has recently been made in the United States District Court in the case of *LOCKE and MONTAGUE vs. ship Blondel*. A libel was filed to recover damages for injuries by rust to a lot of iron consigned to plaintiffs by said vessel. It was contended on the part of the owners of the ship that she experienced rough weather in coming around Cape Horn, labored and strained very much, and leaked through her waterway seams, and that the damage was excepted against in the bill of lading. On the other hand, it was proven that the damage to the iron was caused by fresh and not by salt water. It is stated that the effect of the latter is to cause corrosion of the surface of the iron, and its action on the metal continues even after it has been dried and cleaned. The reverse is the case where the injury has been occasioned by fresh water. There is even some conflict of opinion as to the cause of the damage in this case. But the preponderance of evidence is decidedly in favor of the theory of the libelants, that the injury was caused by fresh water.

The Court says:

"The mere circumstance that the vessel, in coming around the Horn, encountered heavy weather, is not enough, for such proof can almost always be adduced. He should go further and show, by the condition of the vessel on her arrival, the nature and extent of her leaks, etc., that their natural and necessary effect was to cause the damage that has occurred. In this case no such proofs have been offered, with the single exception of an observation of one of the officers, that one of the leaks was above the coal or so situated as to cause some of the damage. Nor has the ship excluded

the conclusion of negligence, by showing that the stowage was good, for it is not shown that the coal, among which the iron was stowed, when put on board, was dry. One fact, which is admitted by the officers, would seem inconsistent with the notion that the damage was caused by straining and consequent leakage.

"It appears that none of the cargo on the between decks were injured, with the exception of one or two packages. If the vessel strained and leaked so badly, as alleged, it is strange that the iron in the lower hold was the only part of the cargo that suffered.

"If, to these considerations, we add the fact that in the opinion of the majority of the witnesses, the injury was caused by fresh and not by salt water, the conclusion is, I think clear, that the carrier has not established that the injury was caused by one of the excepted points. He is therefore liable. A decree must be entered for \$400, the amount of damages settled by stipulation."

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#### THE PETROLEUM OIL ACT OF ENGLAND.

In the August number of the *Merchants' Magazine*, (vol. 47, page 127,) we referred to a bill which was about being acted upon by Parliament for the regulation of the safe keeping of petroleum. The act after being modified was passed, and the following digest of it we take from the *London Ironmonger*:

The enactment is entitled, "An Act for the safe keeping of Petroleum." It states that it is expedient to provide for the safe keeping of petroleum and certain products that are dangerous to life and property from their properties of giving off inflammable vapors at low temperatures.

It defines "petroleum" *for the purposes of this act*, as any product thereof that gives off inflammable vapors at less than 100 degrees of Fahrenheit's thermometer.

It enacts that after the 1st of October in this present year, 1862, not more than forty gallons of *such* petroleum shall be kept within forty yards of a dwelling-house or any building in which goods are stored, except by virtue of a license, granted by the local authorities. This regulation to be enforced by a penalty not exceeding twenty pounds a day for each day during which it is so kept.

The local authorities empowered to grant licenses to store more than forty gallons of inflammable petroleum are as follows:

In the city of London, the Court of Lord Mayor and Aldermen:

In the metropolis, except the city of London, the Metropolitan Board of Works:

In any burgh in England or Ireland, the mayor, aldermen, and burgesses:

In any place in England or Ireland, within the jurisdiction of any trustees or improvement commissioners, appointed under the provisions of any act of Parliament, the trustees or commissioners:

In any burgh or place in Scotland, not subject to the jurisdiction of police commissioners or trustees, the town council; but in any burgh or place in Scotland, within the jurisdiction of police commissioners, then the police commissioners:

In any harbor within the jurisdiction of a harbor authority, the harbor authority, to the exclusion of any other local authority :

In any place in England or Ireland in which there is no local authority, the justices in petty sessions, and in Scotland any two justices of the peace for the county.

Licenses in pursuance of this act may be granted for a limited time, and there may be annexed thereto any conditions as to renewal or otherwise which the local authority thinks necessary for diminishing the risk of damage from explosion or fire ; and any licensee violating any of the conditions of his license shall be deemed to be an unlicensed person.

If, on any application for a license under this act, the local authority refuses the license, or grants the same only on conditions with which the applicant is dissatisfied, he may memorialize the Secretary of State, and it shall be lawful for the Secretary of State, on consideration of such memorial, after due inquiry, to grant the license prayed for, or to alter or modify the conditions imposed by the local authority.

Any forfeiture or penalty for an offence against this act may be enforced in England and Ireland upon summary conviction before any two justices ; and one-half of the penalty shall belong to her Majesty, and the other to the informer, unless the informer is a servant of the person informed against.

Any forfeiture or penalty for an offence against this act may be enforced in Scotland upon summary conviction, and the offender may be sentenced to imprisonment, until such penalty and the expenses are paid, for a period not exceeding three months.

Petroleum may be searched for in the same manner, and subject to the same conditions under which gunpowder may be searched for.

All powers given by this act shall be deemed to be in addition to any other powers conferred on any local authority by act of Parliament, law, or custom ; and nothing in this act shall exempt any person from any penalty to which he would otherwise be subject in respect of a nuisance.

It will be seen that this act does not apply, in any way, to oils that require to be heated above 100 degrees of Fahrenheit's thermometer before they give off inflammable vapor ; all good burning oils are of this character, hence the retailer of mineral oils has only to satisfy himself that they are above this proof standard, and he may keep any quantity in stock without requiring a license. It is obvious, however, that the lighter oils sold as mineral turps are below this standard. We have purposely examined two samples, and find that both give off inflammable vapor below 70 degrees Fahrenheit ; hence a vendor, wholesale or retail, keeping above forty gallons in stock, would require a license, or be subjected to the heavy penalties named in the act.

From the loose wording of the act we cannot decide whether it applies to other liquids than " Petroleum and certain products thereof." If these terms are taken in their usual signification, the act would not apply to paraffine obtained from the distillation of coal, or to its products, such as benzole, etc., however dangerous ; but we should feel inclined to think that the operation of the act would be extended to all hydrocarbon oils, however obtained.

## COMMERCIAL CHRONICLE AND REVIEW.

PROGRESS OF PAPER—GOVERNMENT EMBARRASMENTS—APPRECIATION OF GOLD—SPECULATIVE MOVEMENT—THEORIES OF PAPER CURRENCY—ALLEGED CAUSES OF APPRECIATION—GENERAL ADVANCE IN PRICES—LOSSES OF CONTRACTORS—GOVERNMENT REMITTANCES—WAR EXPENSES—ULTIMATE DISCREDIT—EVILS OF CONTRACTION—INTERFERENCE—LARGER IMPORTATIONS—IMPORTS—VALUATIONS—COST OF GOODS—EXPORTS—RATES OF EXCHANGE—RAPID RISE IN BILLS—GOLD MOVEMENT—INCREASED EXPORTS OF GOLD—SMALL CURRENCY—TAX LAW.

THE operations of the past month have been distinguished for a very rapid development of the inevitable tendency of the paper system of the government, and for its disturbing effects upon the course of business, the values of securities, and the finances of the government. The most prominent indication of the course of events has been the apparent rise in the premium on gold, caused by the depreciation of the government paper used as a currency, aided by the operations of those who seek to profit by the course of events. It is hardly worth while to allude to the various theories put forth to account for the phenomena of the markets, by those who refuse to admit the unsoundness of the paper system, and the depreciation which inevitably attends all inconvertible promises, whether emitted by government or individuals. The rise in gold, it is alleged, is purely speculative, which may be stopped by decisions of the banks, votes of the board of brokers, or decrees of the government; the advance in exchange, it is said, has a similar origin; the rise in stocks, it is averred, is due to their great prosperity and intrinsic value; but the whole list of commodities embraced in the *prices current* show the same results. The rise was about ten per cent all round, and for each improvement an especial reason is assigned, in order to avoid recognizing the only universal cause, viz: the depreciation of the paper in comparison with all commodities and securities. There is no doubt but that numbers of persons knowing that paper will inevitably depreciate as compared with gold, hold gold, and for the same reason others hold other commodities. They do not make the depreciation; they only avail themselves of it. Meantime numbers realize fortunes in the apparent advance, and others are ruined. The government is embarrassed in its remittances to its diplomatic and other agents by the high price of exchange, by which fifty per cent is added to the expense; contractors who agreed to furnish supplies of goods and provisions at certain rates find themselves ruined in the rise, and new appropriations must be made by Congress to cover the deficits. This is one form in which the war expenses are increased. The expenses of the war increase in proportion to the depreciation of the paper, involving the necessity of further issues, which, in their turn, accelerate the depreciation. When the Secretary of the Treasury entered upon this course of finance he commenced a system which has no turning, but which rolls on with accelerated force, until the paper becomes entirely discredited. The moment of distress is not while prices are rising and the majority of people profit by the rise, which, of itself, is but an indication of the eagerness of holders of paper to get something of value in exchange for it; but it is when distrust having become general, holders of commodities refuse to part with them except for gold, and that at very low prices as compared with the apparent paper values. The government itself having inaugurated the rise, cannot retrace its

steps, first, because it has not the means to recall its paper, and, second, because it could not withstand the clamor caused by contracting prices and falling values generally, which would make taxes doubly onerous. The attempt to interfere with the movement of gold or the freedom of individual action would only precipitate the loss of that confidence on which the whole system now hangs. The apparent prosperity which the rising prices have caused has induced large importations of goods, and caused a heavy balance against the country, although the changing medium of value has imparted a deceptive appearance to the official returns. The imports at the port of New York for the month have been as follows :

## IMPORTS, PORT OF NEW YORK.

|                   | Specie.    | Free goods.  | Entered for  |              | Total.        |
|-------------------|------------|--------------|--------------|--------------|---------------|
|                   |            |              | Consumption. | Warehouse.   |               |
| January .....     | \$168,658  | \$2,552,050  | \$6,663,396  | \$3,141,725  | \$12,620,829  |
| February .....    | 62,007     | 3,881,478    | 7,058,174    | 3,370,486    | 13,872,140    |
| March .....       | 89,327     | 3,476,004    | 10,312,689   | 4,841,846    | 18,719,866    |
| April .....       | 26,152     | 2,232,315    | 7,141,197    | 3,853,218    | 13,252,682    |
| May .....         | 110,383    | 1,146,093    | 8,091,120    | 4,600,920    | 12,948,516    |
| June .....        | 61,023     | 1,122,092    | 7,278,953    | 2,874,127    | 12,336,195    |
| July .....        | 219,001    | 1,331,932    | 18,799,505   | 4,502,764    | 20,353,202    |
| August .....      | 92,718     | 982,992      | 10,289,427   | 2,939,721    | 14,304,843    |
| September .....   | 121,318    | 1,784,804    | 11,890,711   | 4,351,084    | 18,147,917    |
| Total, 9 months.. | \$945,577  | \$18,809,755 | \$82,625,172 | \$35,475,391 | \$137,856,395 |
| " 1861 .....      | 35,186,780 | 23,651,574   | 41,657,913   | 24,492,399   | 134,989,116   |

The quantity of goods imported has been very considerable, and they are valued in the foreign or specie currency. Thus, by law, the British goods are valued at the custom-house at \$4 84 the £ sterling; but the amount that the importer is required to pay is very much larger. For the month of September the rate of exchange for duties was thirty per cent, or twenty per cent above par, and gold was sixteen per cent. There having been in round numbers \$14,000,000 entered for consumption in September, and the duties paid being \$5,239,045, the cost to the importer was, extra exchange \$2,800,000, premium for notes for duties \$838,000—total \$3,638,000, which, added to the imports, makes \$17,638,000. This amount was paid to holders of gold notes, and to exchange dealers to enable importers to remit \$14,000,000. The prices of goods rose to some extent, but not sufficiently to cover this increase of cost. On the other hand, the exports have been as follows :

## EXPORTS, PORT OF NEW YORK.

|                   | Specie.      | Foreign.  |             | Domestic.     | Total.        |
|-------------------|--------------|-----------|-------------|---------------|---------------|
|                   |              | Free.     | Dutiable.   |               |               |
| January .....     | \$2,658,374  | \$27,193  | \$149,493   | \$12,053,477  | \$14,948,437  |
| February .....    | 3,776,919    | 49,066    | 203,757     | 10,078,101    | 14,112,843    |
| March .....       | 2,471,233    | 65,388    | 458,917     | 8,985,176     | 11,907,714    |
| April .....       | 4,037,675    | 56,350    | 607,678     | 8,002,094     | 12,703,797    |
| May .....         | 5,164,536    | 76,971    | 752,797     | 9,837,693     | 15,342,097    |
| June .....        | 9,867,614    | 43,358    | 372,561     | 10,048,832    | 20,332,375    |
| July .....        | 8,067,337    | 1,117,193 | 449,948     | 14,050,437    | 23,684,915    |
| August .....      | 3,713,532    | 417,100   | 256,680     | 13,046,389    | 17,833,701    |
| September .....   | 3,085,919    | 572,572   | 667,987     | 14,734,993    | 19,061,471    |
| Total, 9 months.. | \$42,843,139 | 2,520,616 | \$3,829,403 | \$100,837,192 | \$150,030,350 |
| " 1861 .....      | 3,279,314    | 1,976,632 | 4,140,079   | 90,560,488    | 99,956,963    |

The exports are apparently large, but the valuation of these articles are the paper market prices, and are therefore more than their actual values abroad by the rate of exchange. Thus, the domestic produce exported in September was \$14,734,993, against \$9,877,000 same month last year; but this year the exchange, which represents the paper inflation, was twenty-five per cent more than last year, hence the actual sum to be realized from the export is \$11,334,993, or \$7,000,000 less than the amount of goods to be paid for there. Thus, although the returns show imports \$18,000,000 and exports \$19,000,000, or what is called \$1,000,000 in favor of the country, the actual state of affairs is—imports \$18,000,000 and exports \$14,500,000, or \$3,500,000 adverse balance. It is not, therefore, a matter of surprise that the outflow of gold continues, even independently of the sums to be remitted on account of the amount of stocks sent here to sell. The course of exchange runs as follows:

## RATES OF EXCHANGE.

|          | London.     | Paris.        | Amsterdam. | Frankfort. | Hamburg.  | Berlin.   |
|----------|-------------|---------------|------------|------------|-----------|-----------|
| Dec. 1,  | 109 a 109½  | 5.25 a 5.15   | 40½ a 40½  | 41 a 41½   | 85½ a 86  | 78½ a 74  |
| " 15,    | 110½ a 110½ | 5.15 a 5.10   | 41½ a 41½  | 41½ a 42   | 86½ a 87  | 74 a 74½  |
| Jan. 1,  | 110½ a 118  | 5.12½ a 5.05  | 42 a 42½   | 42½ a 43   | 87½ a 88  | 74½ a 75  |
| " 15,    | 118½ a 114  | 5.05 a 4.90   | 42½ a 43½  | 43½ a 43½  | 87½ a 88½ | 75½ a 76½ |
| Feb. 1,  | 118 a 118½  | 5.10 a 4.95   | 42½ a 43½  | 43½ a 43½  | 87 a 88½  | 75½ a 76  |
| " 15,    | 115 a 115½  | 4.97½ a 4.90  | 42½ a 43½  | 43½ a 44   | 87½ a 88½ | 76½ a 77  |
| Mar. 1,  | 112 a 118   | 5.05 a 5.00   | 42½ a 43   | 42½ a 43   | 87 a 87½  | 75½ a 75½ |
| " 15,    | 112½ a 112½ | 5.07½ a 5.03½ | 42½ a 43   | 42½ a 43½  | 86½ a 87½ | 74½ a 75  |
| " 22,    | 111 a 112½  | 5.08½ a 5.00½ | 42 a 42½   | 42½ a 42½  | 86½ a 87½ | 74 a 74½  |
| " 29,    | 111 a 112   | 5.10 a 5.05   | 42 a 42½   | 42½ a 42½  | 86½ a 87½ | 74 a 74½  |
| Apr. 5,  | 111½ a 112½ | 5.07½ a 5.02½ | 42½ a 42½  | 42½ a 42½  | 86½ a 87½ | 74½ a 74½ |
| " 12,    | 111½ a 112½ | 5.10 a 5.03½  | 42 a 42½   | 42½ a 42½  | 86½ a 87½ | 74½ a 71½ |
| " 19,    | 111½ a 112½ | 5.10 a 5.03½  | 41½ a 42½  | 42½ a 42½  | 86½ a 87½ | 74 a 74½  |
| " 26,    | 111½ a 112½ | 5.02½ a 5.07½ | 42½ a 42½  | 42½ a 42½  | 86½ a 87½ | 74½ a 74½ |
| May 2,   | 112½ a 118½ | 4.97½ a 5.02½ | 42½ a 42½  | 42½ a 47½  | 87 a 87½  | 74½ a 74½ |
| " 10,    | 118 a 114   | 4.91½ a 5.02½ | 42½ a 43   | 42½ a 43½  | 87½ a 87½ | 75 a 75½  |
| " 17,    | 118 a 114   | 4.96½ a 5.00  | 42½ a 43   | 42½ a 43½  | 87½ a 88  | 75 a 75½  |
| " 24,    | 114½ a 115  | 4.92½ a 5.00  | 42½ a 43   | 43 a 43½   | 87½ a 88  | 75½ a 75½ |
| " 31,    | 114 a 114½  | 4.95½ a 4.91½ | 42½ a 43½  | 43½ a 43½  | 87½ a 88½ | 75½ a 76  |
| June 7,  | 114 a 115   | 4.95 a 4.91   | 43 a 43½   | 43½ a 43½  | 87½ a 88½ | 75½ a 76  |
| " 14,    | 117½ a 118  | 4.75 a 4.82   | 43½ a 44½  | 44½ a 45   | 89 a 89½  | 76½ a 77½ |
| " 26,    | 120½ a 121  | 4.70 a 4.66   | 44½ a 45   | 45 a 45½   | 40 a 40½  | 78 a 78½  |
| July 5,  | 120 a 122   | 4.70 a 4.62½  | 55½ a 45½  | 45 a 45½   | 45 a 45½  | 79 a 79½  |
| " 12,    | 127 a 129   | 4.83½ a 4.81½ | 48 a 49    | 48 a 49    | 42½ a 48½ | 84½ a 85½ |
| " 19,    | 128½ a 131  | 4.87½ a 4.82½ | 48½ a 49   | 48½ a 49   | 43 a 44   | 86½ a 87½ |
| " 27,    | 126 a 129   | 4.45 a 4.35   | 47½ a 48½  | 48 a 48½   | 41½ a 42½ | 85½ a 86½ |
| Aug. 2,  | 125 a 127   | 4.52 a 4.55   | 47½ a 48½  | 47½ a 48½  | 41½ a 42  | 82 a 83   |
| " 9,     | 124 a 126   | 4.55 a 4.47½  | 47 a 47½   | 47½ a 47½  | 41 a 42   | 82 a 82½  |
| " 16,    | 126½ a 127½ | 4.45 a 4.40   | 47½ a 47½  | 47½ a 48   | 42 a 42½  | 83 a 83½  |
| " 23,    | 126½ a 128  | 4.45 a 4.40   | 47½ a 47½  | 47½ a 48   | 41½ a 41½ | 82½ a 83½ |
| " 30,    | 126½ a 127½ | 4.45 a 4.40   | 47½ a 47½  | 47½ a 48   | 42 a 42½  | 83½ a 84  |
| Sept. 6, | 128½ a 130  | 4.86½ a 4.82½ | 48½ a 49   | 48½ a 49½  | 42½ a 43  | 85 a 85½  |
| " 13,    | 126½ a 131  | 4.86½ a 4.80  | 48½ a 49½  | 49 a 49½   | 42½ a 43½ | 85½ a 86½ |
| " 20,    | 128½ a 129½ | 4.42 a 4.35   | 48½ a 48½  | 48½ a 48½  | 42½ a 42½ | 85 a 85½  |
| " 27,    | 128½ a 129½ | 4.40 a 4.32   | 48½ a 49   | 48½ a 49   | 42½ a 43  | 85½ a 86  |
| Oct. 4,  | 134½ a 135½ | 4.20 a 4.15   | 50½ a 51½  | 50½ a 51   | 44½ a 45  | 88 a 89   |
| " 11,    | 137½ a 142½ | 4.12 a 4.00   | 51½ a 53   | 52½ a 53½  | 46 a 47   | 92 a 94   |
| " 18,    | 148 a 152   | 4.90 a 3.90   | 53 a 52    | 52 a 53    | 46 a 47   | 91 a 93   |
| " 25,    | 143 a 145½  | 3.90 a 3.85   | 54½ a 55   | 54½ a 55   | 48 a 47½  | 95½ a 96½ |

In the three weeks ending with October 18, bills rose twenty per cent, or rather faster than the price of gold, showing that the demand for remittance was active, and also that the bankers drew with great reluctance,



in the uncertain state of the gold market. With the rise of bills produce also advanced rapidly, because the choice of remittance lay between gold and grain or provision. The state of the harvests abroad is now ascertained to be such that, with the large stocks of grain on hand, the wants of England will not be large, and therefore prices are falling. The gold movement has been as follows:

## SPECIE AND PRICE OF GOLD.

|            | 1861.       |           |                  |            | 1862.         |           | Price of gold. |
|------------|-------------|-----------|------------------|------------|---------------|-----------|----------------|
|            | Received.   | Exported. | Received.        | Exported.  | Gold in bank. |           |                |
| Jan. 4.... |             |           |                  | \$442,147  | \$23,983,878  | 2 a 4     | prem.          |
| " 11...    | \$1,445,885 |           | \$855,928        | 1,085,025  | 25,378,070    | 4 a 5     | "              |
| " 18...    | 1,446,219   |           |                  | 547,708    | 26,120,859    | 4 a 4½    | "              |
| " 25...    | 1,246,029   | \$22,855  | 627,767          | 322,918    | 26,698,728    | 2 a 3½    | "              |
| Feb. 1...  | 1,514,154   | 289,669   |                  | 810,484    | 27,479,538    | 3½ a 3½   | "              |
| " 9...     | 1,052,813   | 115,698   | 854,000          | 976,285    | 28,196,666    | 3½ a 3½   | "              |
| " 15...    | 1,056,426   | 117,101   | 614,146          | 1,156,154  | 28,114,148    | 4 a 4½    | "              |
| " 22...    |             | 187,258   | 759,247          | 734,512    | 28,875,992    | 3 a 3½    | "              |
| March 1... | 855,755     | 176,161   | 741,109          | 510,774    | 29,826,959    | 2 a 2½    | "              |
| " 8...     |             |           | 679,075          | 585,236    | 30,436,644    | 1½ a 2½   | "              |
| " 15...    | 815,524     | 123,316   | 677,058          | 477,835    | 30,773,050    | 2 a 1½    | "              |
| " 22...    |             | 91,161    |                  | 540,968    | 32,023,890    | 1½ a 1½   | "              |
| " 29...    | 699,597     | 6,088     | 490,868          | 779,564    | 32,841,862    | 1½ a 1½   | "              |
| April 5... | 996,445     | 628,708   | 581,292          | 678,826    | 33,764,382    | 1½ a 1    | "              |
| " 12...    | 1,110,231   | 323,906   |                  | 1,505,728  | 34,594,668    | 1½ a 2½   | "              |
| " 19...    |             | 328,127   | 617,279          | 693,432    | 34,871,528    | 2 a 1½    | "              |
| " 26...    | 844,577     | 1,000     | 635,546          | 1,151,800  | 35,297,944    | 1½ a 1½   | "              |
| May 2...   |             | 800       | 410,804          | 712,275    | 35,175,828    | 2½ a 3½   | "              |
| " 9...     | 868,600     | 27,695    | 484,019          | 1,574,166  | 32,239,868    | 3½ a 3½   | "              |
| " 17...    | 755,102     |           | 604,682          | 1,093,081  | 30,280,697    | 3 a 3½    | "              |
| " 24...    | 1,913,855   |           | 604,682          | 988,082    | 30,672,760    | 3½ a 3½   | "              |
| " 31...    | 2,282,137   | 500       | 224,911          | 881,452    | 31,397,264    | 3½ a 3½   | "              |
| June 7...  | 1,618,876   | 650       | 553,085          | 1,647,299  | 31,284,882    | 3½ a 4½   | "              |
| " 14...    | 617,861     | 18,976    | 352,391          | 1,990,327  | 31,162,048    | 4 a 6½    | "              |
| " 21...    | 986,143     | 222,546   | 612,461          | 3,156,988  | 31,047,945    | 6 a 6½    | "              |
| " 28...    |             | 2,070     | 893,212          | 3,094,101  | 30,832,626    | 7 a 9½    | "              |
| July 5...  | 811,268     | 2,200     |                  | 2,647,060  | 31,790,519    | 9 a 10    | "              |
| " 12...    |             | 1,568     | 641,451          | 2,424,916  | 32,098,174    | 9½ a 17   | "              |
| " 19...    | 1,244,000   | 1,750     | 441,179          | 1,846,028  | 31,926,609    | 17 a 20   | "              |
| " 27...    |             | 4,000     |                  | 784,587    | 33,064,575    | 16½ a 17  | "              |
| Aug. 2...  | 2,128,240   | 1,382     | Golden Gate lost | 748,523    | 34,022,490    | 14½ a 16  | "              |
| " 9...     |             |           | 964,422          | 890,552    | 34,611,069    | 12½ a 18  | "              |
| " 16...    | 941,081     | 700       |                  | 700,431    | 35,301,778    | 14½ a 15  | "              |
| " 23...    | 1,176,484   | 1,040     | 1,089,111        | 919,825    | 35,583,486    | 15 a 15½  | "              |
| " 30...    | 757,629     | 9,280     |                  | 1,137,644  | 35,640,984    | 16 a 16½  | "              |
| Sept. 6... | 1,100,698   | 5,120     | 807,568          | 551,097    | 36,138,928    | 16½ a 18½ | "              |
| " 13...    |             | 69,859    |                  | 1,042,835  | 37,125,245    | 19 a 19½  | "              |
| " 20...    | 953,340     | 11,150    | 934,415          | 490,895    | 37,863,087    | 17 a 17½  | "              |
| " 27...    |             |           | 758,286          | 996,892    | 37,592,552    | 16 a 16½  | "              |
| Oct. 4...  | 937,776     | 7,100     |                  | 713,075    | 38,325,587    | 22½ a 22½ | "              |
| " 11...    |             | 2,011     | 807,616          | 2,255,513  | 39,263,086    | 23½ a 24  | "              |
| " 18...    | 1,011,707   | 3,921     |                  | 1,714,551  | 38,759,256    | 35½ a 37½ | "              |
| " 25...    | 1,026,332   | 2,006     | 768,121          | 2,024,880  | 37,453,531    | 27 a 31½  | "              |
| Total..    | 34,206,229  | 3,263,447 | 19,689,688       | 49,967,624 | .....         |           |                |

The receipts of gold from California continue to be small as compared with last year, and naturally so, since gold leaves the scene of paper currency rather than seeks it. In California the government paper has not been adopted as a currency. Gold continues to be the medium, and the government paper is quoted at a discount, greater or less proportioned

to the supply that there is upon the market. The export of the gold has been renewed in October with much vigor, on account of the increased imports of goods and the diminished value of the national exports in the foreign markets to be drawn against. In other words, the balance to be drawn against has been much diminished. By an inspection of the above specie tables, it will be observed that while the exports of specie have been large since April 1, when the issues of paper began, that the amount of specie in bank has, notwithstanding, constantly increased up to October 11, when these institutions held \$9,000,000 more than on the 17th May. The rise in the price of gold in New York drained thither all that was available in the interior, and it accumulated in the banks. In the last two weeks the amount declined for the first time \$2,000,000—an indication that the interior supply is exhausted. Hence the more rapid rise in the price, which, in the week ending October 18, produced a sort of panic, and induced the Secretary of the Treasury to send an agent to the Board of Brokers to request them not to deal in gold, on the pretence that those dealing helped the rise. The brokers had the weakness to comply with the Secretary request, thus endorsing the folly of the department. The price of gold and gold notes used for the payment of duties has, as compared with the price of government securities, been as follows since the issues of paper commenced:

## PRICES UNITED STATES PAPER.

|         |         | 5's, 1861. |       | 5's, 1874. | 7 3-10,<br>3 years. | 6 p. a. certif.<br>1 year. | Gold.<br>demand | notes. |
|---------|---------|------------|-------|------------|---------------------|----------------------------|-----------------|--------|
|         |         | Reg.       | Coup. |            |                     |                            |                 |        |
| August  | 2.....  | 98½        | 98½   | 85½        | 102½                | 98½                        | 15              | 5½     |
| "       | 9.....  | 99         | 100   | 85½        | 103½                | 100                        | 12½             | 5½     |
| "       | 16..... | 100½       | 100½  | 90         | 100                 | 100                        | 15              | 7½     |
| "       | 23..... | 101        | 101   | 90         | 104                 | 99½                        | 15½             | 8      |
| "       | 30..... | 101½       | 101½  | 90         | 104½                | 100                        | 16½             | 8½     |
| Sept.   | 6.....  | 99½        | 99½   | 88½        | 103½                | 99                         | 18½             | 8      |
| "       | 18..... | 99½        | 99½   | 88½        | 103                 | 98½                        | 19½             | 8½     |
| "       | 20..... | 102        | 102   | 90         | 104½                | 99                         | 17              | 12½    |
| "       | 26..... | 101½       | 101½  | 90½        | 104½                | 99½                        | 20½             | 16½    |
| October | 4.....  | 104½       | 104½  | 94         | 105½                | 94                         | 19½             | 22½    |
| "       | 11..... | 104        | 104   | 92½        | 105                 | 99½                        | 27½             | 23½    |
| "       | 18..... | 104        | 104   | 92½        | 106                 | 99½                        | 32              | 29     |
| "       | 25..... | 108        | 108   | 93         | 105                 | 99                         | 31              | 27     |

The amount of gold and gold notes, which are the medium for the payment of duties and remittance at present, has been much reduced in the period here embraced. The number of notes emitted and receivable for duties was \$60,000,000, and the amount of gold in banks and otherwise available for duties was, in March last, supposed to be \$100,000,000. This stock of "customs currency" was then as follows:

|                                |              |                     |
|--------------------------------|--------------|---------------------|
| Demand notes.....              | \$60,000,000 |                     |
| Gold.....                      | 100,000,000  |                     |
|                                |              | <hr/> \$160,000,000 |
| Notes since paid for duties.   | \$47,000,000 |                     |
| Gold sent South for cotton     | 10,000,000   |                     |
| Gold not exported.....         | 27,000,000   |                     |
|                                |              | <hr/> 84,000,000    |
| Present supply for duties..... |              | <hr/> \$76,000,000  |

The stock has thus been reduced than one half. The amount of notes outstanding is about \$15,000,000, and is absorbed at the rate of \$1,000,000 per week, while the gold has left the country in the last six months at the same rate. At the same time a large proportion of the \$50,000,000 now held by the banks is owned by speculators. By the first of January the notes will probably all be drawn in and the stock of gold be diminished \$15,000,000 by export, when, in addition to the present demand of \$1,000,000 per week for export, there will be an imperceptible daily demand for \$200,000 from the importers with which to pay duties. In other words, \$2,000,000 per week in gold will be required to be supplied from the diminished stock held by speculators, or those who prefer gold to paper. It follows that the importers being "cornered," there is no limit to the premium they may be compelled to pay if Congress persists in two currencies—one for the people, paper, and another, gold, for government duties and interest. It is said that the government pays out the gold again; but that does not help the market—it only benefits the stock holder, who, receiving it for interest, sells it for the premium to the brokers or to the government to pay its dividends. The government is itself the most powerful agent in causing a rise in the price of gold as measured in its own depreciated promises.

In our last number we mentioned that the Treasury department, in order to supply itself with gold to pay the accruing interest, had received gold on deposit, to be returned in gold, and allowing four per cent interest. The effect of this was to make the gold lodged with the banks a source of profit to them, and they were more disposed to lend on gold at lower margins. Some of them, it is said, loaned as high as 125 per cent. They could thus, by lending on the gold, get seven per cent for their notes and then lend the gold to the government at four per cent, make eleven per cent for the use of inconvertible promises, and the government be responsible for the return of the gold. It was hardly a matter of surprise that a gold speculation should, under such circumstances, have been added to the national appreciation of the metal for paper; nor that those banks which held largely of the "demand gold notes," which rose step by step with gold, should encourage the movement until they had disposed of those notes, and perhaps their gold to speculators, at very large profits. It was reported that one bank held \$1,200,000 of those notes, and realized \$300,000 profit on this movement. Its stock sells very high in the market. With the culmination of this movement a reaction was to be looked for, and gold, which had risen twenty per cent in three weeks, fell back nearer to its actual value as measured in the depreciation of government issues. The depreciation apparent in the above table is as follows:

|                                             | In paper. | In gold. | Price of gold. |
|---------------------------------------------|-----------|----------|----------------|
| Price U. S. six per cent, May 17....        | 105       | 102      | 103            |
| "                    "          Oct. 18.... | 104½      | 77       | 130            |

Thus the price of the stock interest payable in gold fell twenty-five per cent. A person living in England may, to-day, buy them at a rate which gives him eight per cent in gold; but, under the circumstances, they are no temptation. The one-year certificates of the government pay six per cent in gold, which gives the holder here nine per cent interest, yet they are at a discount even for paper. The rise in prices really indicates the dissipation of the national capital, which has been devoted to

the war to the exclusion of other employments. With the return of peace capital, never superabundant in this country for the employment of industry, will be dearer than ever, and few persons will be able to let it lie in government securities. For the same reason the government will be compelled to follow for a time the dangerous path of paper money on which it has entered, and its currency will be more depreciated than ever as compared with gold. The gold which it received on deposit in September, with the obligation to return it at a future time, was worth seventeen per cent in the market. It subsequently rose to thirty-eight per cent, involving a loss to the government of \$800,000 on \$4,000,000 so borrowed. Certainly this was a very dear mode of borrowing.

The taxes when paid in paper will be found sufficiently vexatious to a people unused to taxes, and if demanded in gold will become still more irksome. That the depreciation of the paper is now no greater than it is, is due partly to the fact that the mechanical difficulties in the way of issuing it are so great that the government cannot meet the demands upon it. The loudest complaints in relation to the arrearages of the army are made in many quarters, and although Congress has now been adjourned three months the public have not been able to obtain the small currency in any adequate amounts as substitutes for "postage stamps," which have afforded a miserable shift, in place of the silver coin they helped to drive out. On the days on which the small currency is doled out to the public the neighborhood of the Assistant Treasury in all the cities is thronged to procure some of the paper change—a fact which indicates the severity of the distress which the public undergoes. It is to be borne in mind that although the Treasury is authorized to issue \$300,000,000 of paper demand notes, there is no limit on the amount of paper fractions of the dollar that may be put afloat, nor is there any limit on the amount of one-year certificates, bearing six per cent payable in gold, that may be uttered. There was authorized \$500,000,000 of 5-20 stock in which to fund them, but there was no limit made to the amount that might be issued. Hence the continued low price, even in paper, of those certificates, of which some \$80,000,000 are outstanding.

The resources of the government that may be developed by the operation of the new tax law are not yet very manifest, and there seems to be less confidence in its effectiveness than when it was issued. The state of the market for capital is such that it is very apparent that the government cannot retrace its steps in regard to paper, since it would have but two alternatives, viz: to collect the whole of its revenue within the year in gold, to meet an expenditure of \$1,000,000,000 per annum—a manifest impossibility. Its six per cent stocks are now twenty-three per cent discount for paper, and to come into the market now to borrow large amounts in gold would be equally impossible. There remains, then, to collect a nominal revenue in paper, which will involve prompt action on the part of the coming Congress to authorize the reissue of the notes after December, and probably to extend the amount.

The last official statement of the expenditure was for the quarter ending June 30, 1862, or the first quarter after the issue of the paper money. It will show the progress of expenditure, and the mode of raising the means:

## RECEIPTS.

|                                                                   |                      |
|-------------------------------------------------------------------|----------------------|
| From customs.....                                                 | \$18,980,000         |
| Direct tax.....                                                   | 1,795,000            |
| Sales of public lands.....                                        | 49,000               |
| Miscellaneous.....                                                | 259,000              |
| Three years bonds at 7 3-10th per cent.....                       | 18,825,000           |
| Five-twenty years' bonds, act of Feb. 25, 1862.....               | 13,990,000           |
| Stock for Washington and Oregon War debt.....                     | 198,000              |
| U. S. notes per act of July 17 and August 5, 1861.....            | 30,000               |
| U. S. notes per act of Feb. 25, 1862.....                         | 98,000,000           |
| Certificates of indebtedness, acts 1st and 17th August, 1861..... | 44,252,000           |
| Temporary loans, act of Feb. 25, 1862.....                        | 46,187,000           |
| <b>Total.....</b>                                                 | <b>\$238,000,000</b> |

## EXPENDITURES.

|                                                                                                         |                      |
|---------------------------------------------------------------------------------------------------------|----------------------|
| Civil, foreign intercourse, and miscellaneous.....                                                      | \$6,028,000          |
| Interior—Pensions and Indians.....                                                                      | 700,026              |
| War.....                                                                                                | 160,084,000          |
| Navy.....                                                                                               | 14,800,018           |
| Interest on public debt, including Treasury notes.....                                                  | 3,969,000            |
| Pay of Treasury notes issued by act of Dec. 8, 1857.....                                                | 101,000              |
| Pay of Treasury notes issued by act of March 2, 1861.....                                               | 792,000              |
| Redemption of United States notes, issued by act of July 17, 1861.....                                  | 580,000              |
| Reimbursement of temporary loan, acts Feb. 25, and March 17, 1862.....                                  | 7,137,000            |
| Deduct excess of repayments above expenses for pay of Treasury notes, per act of December 17, 1860..... | 38,000               |
| <b>Total.....</b>                                                                                       | <b>\$194,000,000</b> |

The customs were, very large, it will be observed, and there was raised \$1,795,000 from the direct tax. The whole amount of means raised was \$238,000,000 for the quarter; of this \$46,187,000 was deposits received at the Treasury at five per cent, \$98,000,000 was from paper money issues, \$13,825,000 from 7.30 bonds paid out, \$44,252,000 from one-year certificates paid out mostly at a discount, and only \$13,990,000 from conversions of the paper money into 5-20 bonds. Of this amount, \$11,291,000 was in the month of June, when stocks had risen. There was, it appears, no direct borrowing on the part of the government, which could with difficulty float its six per cent year bonds, although gold rose during the quarter from  $1\frac{1}{2}$  to 9 per cent premium. The expenditure for the quarter was, it appears, apart from the debt, \$182,000,000, or at the rate of \$728,000,000 per annum before the rise in prices and before the call for 600,000 men. The War Department cost \$160,000,000, or just double what it cost in the quarter ending Dec. 31, 1861, and \$100,000,000 more than it cost in the quarter Sept. 30, 1861. The number of men has now doubled and the prices have risen, hence the expenses cannot be less than at the rate of \$1,500,000,000 per annum. The expenses for the year to June 1, 1862, increased as follows: Quarter to September 30, 1861, \$98,239,733; December 31, 1861, \$144,946,133; March 31, 1862, \$171,248,180; June 30, 1862, \$194,000,000—total, \$608,000,000; and the debt reported by the Secretary, July 1, 1862, was \$561,901,000, consisting of \$150,000,000 of paper money, \$60,000,000 year bonds, \$55,000,000 deposits due on demand, and the remainder funded debt. The year bonds will be payable in the spring, and thus swell the demands upon the government, at the same time the high rates of gold and exchange diminish the imports and will affect duties. Under these circumstances, the financial question will be a very grave one for the whole community on the meeting of Congress.

## STATISTICS OF TRADE AND COMMERCE.

1. TRADE OF CINCINNATI. 2. THE COFFEE TRADE OF BRAZIL. 3. COTTON, TOBACCO, AND SUGAR TRADE IN NEW ORLEANS. 4. THE HOP TRADE. 5. SALT TRADE OF POLAND. 6. SUCCESSFUL RICE GROWING IN THE HAWAIIAN ISLANDS.

### TRADE OF CINCINNATI.

The following, which we have prepared from tables in the Cincinnati *Price Current*, show the trade of Cincinnati for the years ending August 31, 1861 and 1862:

#### VALUE OF PRINCIPAL IMPORTS.

| Articles.                   | 1862.     | 1861.     |
|-----------------------------|-----------|-----------|
| Apples, green. ....         | \$19,606  | \$152,576 |
| Ale, Beer, and Porter. .... | 21,444    | 22,207    |
| Buffalo Robes. ....         | 106,782   | 135,641   |
| Beef. ....                  | 14,126    | 20,437    |
| Bagging. ....               | 19,455    | 2,924     |
| Barley. ....                | 178,136   | 300,317   |
| Beans. ....                 | 78,520    | 25,304    |
| Butter. ....                | 233,569   | 537,875   |
| Brooms. ....                | 27,020    | 33,300    |
| Boots and Shoes. ....       | 1,048,649 | 1,453,005 |
| Bran, Middlings, etc. ....  | 113,464   | 114,819   |
| Crockeryware, etc. ....     | 83,700    | 162,050   |
| Candles. ....               | 54,924    | 21,870    |
| Corn. ....                  | 529,576   | 455,834   |
| Corn Meal. ....             | 3,356     | 3,324     |
| Cider. ....                 | 3,715     | 9,695     |
| Cheese. ....                | 250,666   | 431,002   |
| Cotton. ....                | 4,750,720 | 7,137,390 |
| Coffee. ....                | 3,744,904 | 3,374,343 |
| Codfish. ....               | 20,580    | 72,128    |
| Cooperage. ....             | 142,762   | 121,169   |
| Cattle. ....                | 2,160,528 | 2,475,685 |
| Cement and Plaster. ....    | 26,100    | 30,800    |
| Eggs. ....                  | 105,858   | 235,790   |
| Flour. ....                 | 2,490,039 | 2,256,847 |
| Feathers. ....              | 194,880   | 167,220   |
| Fish, sundries. ....        | 125,617   | 214,391   |
| Fruits, dried. ....         | 159,605   | 114,605   |
| Grease. ....                | 246,312   | 121,712   |
| Glass. ....                 | 73,932    | 93,866    |
| Glassware. ....             | 149,067   | 158,195   |
| Hemp. ....                  | 550,600   | 148,900   |
| Hides. ....                 | 631,445   | 763,135   |
| Hardware. ....              | 1,240,470 | 732,620   |
| Hay. ....                   | 157,113   | 91,556    |
| Herrings. ....              | 17,338    | 3,028     |

| Articles.                   | Value.     |            |
|-----------------------------|------------|------------|
|                             | 1869.      | 1861.      |
| Hogs.....                   | 3,643,212  | 6,396,672  |
| Hops.....                   | 77,740     | 70,180     |
| Horses.....                 | 5,174,520  | 1,234,700  |
| Iron and Steel.....         | 815,492    | 937,606    |
| Iron—Pig.....               | 663,656    | 590,800    |
| Lead.....                   | 234,156    | 297,229    |
| Lard.....                   | 1,976,008  | 1,169,189  |
| Leather.....                | 472,396    | 296,820    |
| Lemons.....                 | 55,860     | 14,864     |
| Lime.....                   | 44,200     | 72,429     |
| Liquors.....                | 148,010    | 221,400    |
| Merchandise and Sundries. . | 37,415,000 | 34,230,000 |
| Merchandise.....            | 6,555,880  | 3,174,400  |
| Molasses.....               | 349,840    | 860,376    |
| Malt.....                   | 76,548     | 56,122     |
| Nails.....                  | 411,186    | 398,316    |
| Oils.....                   | 480,500    | 870,980    |
| Oranges.....                | 53,948     | 51,636     |
| Oakum.....                  | 66,024     | 34,336     |
| Oats.....                   | 401,685    | 226,381    |
| Oil Cake.....               | 1,375      | 13,560     |
| Onions.....                 | 6,533      | 15,838     |
| Pork and Bacon.....         | 2,452,740  | 2,616,783  |
| Potatoes.....               | 137,187    | 127,292    |
| Pitch.....                  | 2,061      | 1,751      |
| Pimento, Pepper, etc.....   | 55,200     | 37,008     |
| Rye.....                    | 98,874     | 78,754     |
| Rosin.....                  | 6,525      | 19,140     |
| Raisins and Figs.....       | 35,137     | 67,607     |
| Rope, Twine, etc.....       | 76,968     | 79,056     |
| Rice.....                   | 408,870    | 148,995    |
| Sugar.....                  | 3,993,445  | 3,559,270  |
| Seed—Flax.....              | 62,601     | 63,617     |
| “ Grass and Clover....      | 136,542    | 242,749    |
| “ Hemp.....                 | 6,540      | 4,299      |
| Salt.....                   | 529,557    | 247,594    |
| Shot.....                   | 72,696     | 47,120     |
| Starch.....                 | 119,516    | 56,540     |
| Sheep.....                  | 54,906     | 49,592     |
| Stearine.....               | 24,224     | 18,853     |
| Tea.....                    | 886,745    | 672,375    |
| Tobacco.....                | 7,169,288  | 2,372,690  |
| Tallow.....                 | 175,230    | 145,640    |
| Tar.....                    | 9,120      | 11,388     |
| Turpentine.....             | 51,090     | 89,320     |
| Wines.....                  | 247,350    | 204,562    |
| Wheat.....                  | 1,770,434  | 1,129,007  |
| Wool.....                   | 208,746    | 119,680    |
| Whisky.....                 | 3,437,088  | 2,233,313  |
| Yarns—Cotton.....           | 8,040      | 23,546     |
| Oil—Coal.....               | 127,812    | .....      |

| Articles.                      | Value.      |            |
|--------------------------------|-------------|------------|
|                                | 1862.       | 1861.      |
| Oil—Petroleum. ....            | 39,463      | .....      |
| Lumber. ....                   | 687,500     | 800,000    |
| Coal. ....                     | 480,000     | 882,000    |
| Shingles. ....                 | 87,500      | 93,000     |
| Coopers' stuff, wood and stone | 521,000     | 525,000    |
| Total. ....                    | 103,292,693 | 90,198,136 |

## VALUE OF PRINCIPAL EXPORTS.

| Articles.                   | 1862.     | 1861.     |
|-----------------------------|-----------|-----------|
| Apples, green. ....         | \$52,245  | \$78,206  |
| Alcohol. ....               | 944,280   | 651,915   |
| Ale, Beer, and Porter. .... | 79,480    | 80,640    |
| Buffalo Robes. ....         | 100,940   | 151,330   |
| Beef. ....                  | 320,013   | 184,684   |
| Bagging. ....               | 2,605     | 2,540     |
| Barley. ....                | 31,539    | 41,255    |
| Beans. ....                 | 76,776    | 28,377    |
| Brooms. ....                | 13,932    | 29,035    |
| Butter. ....                | 66,155    | 283,957   |
| Bran, Shorts, etc. ....     | 36,481    | 51,904    |
| Boots and Shoes. ....       | 260,211   | 516,107   |
| Crockeryware, etc. ....     | 34,788    | 66,606    |
| Chairs. ....                | 86,144    | 130,416   |
| Candles. ....               | 1,598,980 | 829,404   |
| Corn. ....                  | 135,504   | 139,993   |
| Corn Meal. ....             | 5,214     | 4,323     |
| Cheese. ....                | 59,528    | 155,019   |
| Cotton. ....                | 4,317,600 | 6,874,075 |
| Coffee. ....                | 3,528,256 | 2,294,502 |
| Cooperage. ....             | 227,874   | 121,370   |
| Cattle. ....                | 1,361,086 | 1,171,098 |
| Cement and Plaster. ....    | 7,274     | 7,100     |
| Eggs. ....                  | 44,051    | 100,690   |
| Flour. ....                 | 1,879,141 | 2,026,468 |
| Feathers. ....              | 294,960   | 218,348   |
| Fish, sundry. ....          | 80,515    | 97,691    |
| Fruit, dried. ....          | 94,262    | 50,052    |
| Furniture. ....             | 507,964   | 3,372,106 |
| Grease. ....                | 124,832   | 40,562    |
| Glass. ....                 | 23,740    | 31,551    |
| Glassware. ....             | 25,080    | 18,515    |
| Hemp. ....                  | 434,160   | 6,625     |
| Hides. ....                 | 608,857   | 648,050   |
| Hardware. ....              | 102,760   | 312,900   |
| Hay. ....                   | 105,834   | 28,604    |
| Hogs. ....                  | 60,550    | 228,888   |
| Hops. ....                  | 19,180    | 29,240    |
| Horses. ....                | 5,783,280 | 1,395,900 |
| Iron and Steel. ....        | 1,274,252 | 1,262,971 |



| Articles.               | Value.       |              |
|-------------------------|--------------|--------------|
|                         | 1862.        | 1861.        |
| Lard.....               | 2,033,528    | 2,450,947    |
| Leather.....            | 548,298      | 411,468      |
| Lime.....               | 3,597        | 5,199        |
| Molasses.....           | 456,944      | 673,088      |
| Malt.....               | 93,789       | 124,693      |
| Nails.....              | 238,824      | 272,244      |
| Oil.....                | 1,929,345    | 1,883,105    |
| Oats.....               | 135,255      | 40,93        |
| Oil Cake.....           | 16,150       | 44,975       |
| Onions.....             | 3,393        | 10,745       |
| Pork and Bacon.....     | 5,218,250    | 6,700,187    |
| Potatoes.....           | 13,882       | 88,871       |
| Rye.....                | 37,774       | 33,156       |
| Rope, Twine, etc.....   | 56,712       | 90,975       |
| Sugar.....              | 2,643,930    | 2,343,510    |
| Seed—Flax.....          | 7,409        | 2,484        |
| “ Grass and Clover....  | 66,948       | 195,975      |
| Soap.....               | 341,061      | 209,508      |
| Salt.....               | 256,712      | 160,027      |
| Starch.....             | 166,875      | 93,130       |
| Sheep.....              | 14,866       | 13,200       |
| Stearine.....           | 99,314       | 89,080       |
| Sundry—Merchandise..... | 23,372,840   | 20,904,640   |
| “ Liquors.....          | 744,380      | 296,370      |
| “ Manufactures.....     | 167,005      | 69,652       |
| Spices.....             | 11,407       | 6,820        |
| Tobacco.....            | 7,321,890    | 2,434,296    |
| Tallow.....             | 2,7920       | 148,680      |
| Vinegar.....            | 43,228       | 30,240       |
| Wines.....              | 361,836      | 48,204       |
| Wheat.....              | 1,102,564    | 525,065      |
| Wool.....               | 264,925      | 159,453      |
| Whisky.....             | 1,906,528    | 1,813,143    |
| White Lead.....         | 97,231       | 102,942      |
| Castings.....           | 134,882      | 543,482      |
| Total.....              | \$76,449,862 | \$67,023,126 |

#### THE COFFEE TRADE OF BRAZIL.

A correspondent of the *Journal of Commerce*, under date Rio de Janeiro, September 8, 1862, gives a very interesting account of the coffee trade of Brazil. He says:

I have recently been led, by higher duties, amidst the coffee plantations of Brazil, and have recorded some of my observations, a few of which may not be out of place at this time, when the question is beginning to be raised, “Where shall the world obtain its future supply of coffee?” I do not intend to trace its history from its mountain home in Abyssinia, neither its first naturalization in Arabia and Persia, nor its second transfer,

which made it in 1699 one of the rarities of Batavia, whence it traveled to conservatories of kings in Europe. I shall only hint at its introduction into the new world, before giving an account of its statistics, culture, and prospects in Brazil. The statistics will be valuable for future reference.

In 1710 the grand Louis of France received from the botanical gardens of Amsterdam a small coffee plant, the child of those trees which in eleven years had begun to flourish so well at Batavia. Louis XIV gave the little stranger a passing notice and then ordered it to be placed in the Jardin des Plantes, not imagining the great destiny which awaited the diminutive exotic. Several attempts were made to convey slips from this plant to the French West Indies. In 1720 the attempt was successful, for in that year ANTOINE DE JUSSIEU, the great naturalist, confided to a Captain DEOLIEUX three plants, which it was hoped would not share the fate of previous lots. Two of the plants died, and the survivor owed its existence to the self-sacrificing captain, who, when short of water, divided his ration with the coffee tree. It reached Martinique, thrived, and became the parent of the coffee plantations in the West Indies, and in the Spanish main.

There is some uncertainty as to the means by which the coffee plant was introduced into Brazil. Some say that a few plants were given to the Portuguese Viceroy by a Dutch admiral who was on his way from Java to Holland, and stopped to refresh at Rio de Janeiro. Others believe that the vast plantations of this Empire had their origin in De Jussieu's little plant sent to Martinique; others that it went from Java to Surinam, from Surinam to Cayenne, and from Cayenne to Para, on the Amazon. However this may be, there is no uncertainty as to whom belongs the honor of planting the first coffee tree in Brazil. A Franciscan friar named VILLOSO in 1754 placed a small tree in the garden of the San Antonio Convent in the city of Rio de Janeiro. While trees were planted here and there on almost every plantation devoted to sugar, corn, mandioca, etc., etc., there was no definite culture, there was no one who made it a *specialty*. It was cultivated in quantities only sufficient to furnish the family with coffee, and early travelers to Brazil in this century spoke of the coffee tree as holding a very insignificant place on the plantations. HENRY MARTYN, the lamented missionary to Persia, who touched at Bahia on his way to the East Indies in 1805, gives account of pepper plantations, but only incidentally mentions coffee as a tree planted occasionally, but not for producing a large article of export. It was near the beginning of this century that a Mr. LESOENE, owing to the troubles in Hayti, came to Brazil, and he was the first person to engage seriously in the culture of a staple which to-day far surpasses every other in this Empire. In 1808 the *Carta Regia* of Don John VI threw open the ports of Brazil to the commerce of the world. Coffee production had increased so that in 1808 30,000 sacks (160 pounds each) of the coveted beverage berry were exported to the rest of the world. Previous to 1825, Java, Cuba, and the English colonies in the East and West Indies were the principal producers of coffee. Since that time Brazil has distanced them all. For a number of years she has produced for exportation nearly half the coffee of the world, and some years she even exported more than half. I have made, with considerable trouble and care, the following comparisons and calculations from Brazilian State papers, and for the last three years from

Messrs. MAXWELL, WRIGHT & Co's. circular. The "crop year" differs but little from the Brazilian financial year, and extends from the 1st of July to the 30th of June following. A single glance will show what a contrast there is between 1809, when 30,000 bags were exported, and 1854-55 (the most productive year recorded) when 2,605,424 were sent to the four quarters of the globe. The milreis may be estimated at 54 cents, though it has been, on account of difference of exchange, much higher:

THE ANNUAL AVERAGE EXPORTATIONS FOR PERIODS OF THREE YEARS.

|                    |                                                           |
|--------------------|-----------------------------------------------------------|
| 1840-41-42-43..... | 1,101,473 bags, which sold at Rio for 17,804,000 milreis. |
| 1843-44-45-46..... | 1,245,855 bags, which sold at Rio for 18,938,600 milreis. |
| 1846-47-48-49..... | 1,860,393 bags, which sold at Rio for 22,881,000 milreis. |
| 1849-50-51-52..... | 1,708,593 bags, which sold at Rio for 29,465,300 milreis. |
| 1852-53-54-55..... | 2,109,969 bags, which sold at Rio for 89,277,800 milreis. |
| 1855-56-57-58..... | 2,298,145 bags, which sold at Rio for 48,540,600 milreis. |
| 1858-59-60-61..... | 2,245,479 bags.                                           |
| 1861-62.....       | 1,638,114 bags.                                           |

The year 1860 was a very prosperous year, the exportation being no less than 2,557,179 bags, while in 1861-62 the coffee disease became fully apparent, when the exportation fell off, in a single twelvemonth, to 1,638,114, or in other words, fully one-third. I shall again refer to this disease, which has been so disastrous upon the chief production of this empire.

It will be observed in the above column of figures how the price of coffee became enhanced between 1846 and 1852—i. e. the annual average for the first three years was 22,881,000 milreis for the annual average crop of 1,860,393 bags, against 28,465,300 milreis for a smaller annual crop of 1,708,593 bags. This contrast is still more striking when we compare particular years. The crop exported in the year 1848-49 consisted of 1,720,006 bags, which sold for 21,513,000 milreis. The exportation of the year 1853-54, was 1,739,607 bags, which brought 35,444,000 milreis. The crop of 1861-62 is the smallest since 1845-46. The five largest exportations were in the following years:

|              |       |           |
|--------------|-------|-----------|
| 1850-51..... | sacks | 2,029,653 |
| 1854-55..... |       | 2,605,424 |
| 1855-56..... |       | 2,330,361 |
| 1856-57..... |       | 2,605,239 |
| 1858-59..... |       | 2,422,000 |
| 1860-61..... |       | 2,557,179 |

The African slave trade was effectually put down in 1850. The price of slaves increased and the number of slaves decreased most perceptibly from 1851 to 1852. But taking the annual average of nine years after 1852, and comparing them with the annual average of the nine years after 1842-43, we find the increase in production between 25 and 30 per cent. It is believed that slavery has decreased throughout the Empire .30 per cent, and in the coffee region perhaps half that rate, yet we see the main staple of Brazil really increasing, so that the crop of 1860-61 lacks little less than 50,000 sacks of being the largest ever gathered. Fears had been entertained that Brazil would lose her supremacy, and indeed effectiveness as a coffee growing country, when the African slave trade was put down; but the above facts and figures demonstrate the contrary. The exportations of 1858-59 were large from every coffee producing country,

and in order to show the position which Brazil maintains I give the following tables, which are of value to the general reader, and are worth filing by those engaged in this commerce. In the crop year of 1858-59 there was produced in:

|                      |           |                      |           |
|----------------------|-----------|----------------------|-----------|
| Brazil.....sacks     | 2,422,000 | English possessions  |           |
| Java .....           | 915,000   | other than Ceylon.   | 35,000    |
| Ceylon.....          | 490,000   | Manilla.....         | 21,000    |
| Hayti.....           | 350,000   | French, Dutch, and   |           |
| Cuba and Porto Rico  | 140,000   | other possessions in |           |
| Sumatra.....         | 140,000   | the West Indies and  |           |
| Venezuela .....      | 140,000   | South America....    | 14,000    |
| Costa Rica.....      | 70,000    |                      |           |
| Singapore and Malaca | 70,000    | Total.....           | 4,872,000 |
| Mocha .....          | 35,000    |                      |           |

The consumption in non-producing countries during the same year was greater than the importation, doubtless owing to large stocks on hand. The next table will show that if Brazil is the first producer, the United States (in time of peace) is the greatest consumer. In 1858-59 the consumption of coffee was as follows:

|                                                        |           |
|--------------------------------------------------------|-----------|
| The United States.....sacks                            | 1,575,000 |
| Prussia, Hamburg, and British portions of Germany..... | 810,000   |
| Austria and the remainder of Germany.....              | 525,000   |
| Belgium and Holland.....                               | 665,000   |
| Italy, Spain, Portugal, Turkey, and Switzerland.....   | 525,000   |
| France.....                                            | 420,000   |
| Denmark, Sweden, Norway, and Russia.....               | 350,000   |
| England.....                                           | 280,000   |
| Australia and other parts of the world.....            | 140,000   |
| Total.....                                             | 5,320,000 |

Sadly instructive are the figures for 1861-62 in Messrs. MAXWELL & WRIGHT's last circular, which exhibits the exportation to Europe and the United States during the last three years.

EXPORTED FROM RIO DE JANEIRO.

|                           | 1859-60.         | 1860-61.  | 1861-62.  |
|---------------------------|------------------|-----------|-----------|
|                           | Sacks of coffee. |           |           |
| To the United States..... | 832,042          | 1,204,936 | 509,646   |
| To Europe .....           | 869,811          | 1,309,280 | 1,072,792 |

According to the just proportion, the United States should have imported at least 900,000 bags during this year, but the troubles of our country have caused an extraordinary falling off. This is more perceptible in the bags sent to our chief ports. New York imported from Rio de Janeiro in 1860-61, 446,145 sacks; in 1861-62, 181,704 sacks; Baltimore in 1860-61, 203,231 sacks; 1861-62, 47,454 sacks; New Orleans, 1860-61, 285,079 sacks; 1861-62, 6,185 sacks.

The most remarkable "ports in the United States" (I quote from the circular) are the following, to which were exported the number of sacks opposite their names: Brazil, 9,000; Havana, 51,550; St. Thomas, 84,705; Matamoras, 6,952.

## COTTON, TOBACCO, AND SUGAR TRADE IN NEW ORLEANS.

The New Orleans *Price Current* of September 1, contains a statement of the business of New Orleans for the fiscal year ending September 1, from which we take the following :

## STOCK OF COTTON, 20TH AUGUST, 1862.

|                          |     |      |
|--------------------------|-----|------|
| Southern press.....bales | 1   | .... |
| Sundry pickeries.....    | 225 | 226  |

## ON SHIPBOARD.

|                              |     |
|------------------------------|-----|
| Ship Undaunted.....          | 126 |
| Stock on hand August 20..... | 352 |

## STATEMENT OF COTTON, AUGUST 20TH, 1862.

|                                                                       |        |
|-----------------------------------------------------------------------|--------|
| Stock on hand September 1, 1861.....bales                             | 10,118 |
| Arrived since April 25th.....                                         | 4,056  |
| Arrived previously .....                                              | 34,974 |
| Additional bales made from waste and damaged cotton, samples, &c..... | 1,000  |
| Total.....                                                            | 49,848 |

|                                                          |        |        |
|----------------------------------------------------------|--------|--------|
| Exported since April 25.....                             | 5,725  |        |
| Exported previously .....                                | 14,873 |        |
| Supposed to have been shipped which we have no record of | 6,698  | 27,296 |
| Burnt in presses and on shipboard April 24, about.....   | 22,200 | 49,496 |
| Stock on hand and on shipboard, August 20.....           |        | 352    |

## STATEMENT OF TOBACCO, AUGUST 20, 1862.

|                                             |        |
|---------------------------------------------|--------|
| Stock on hand September, 1861.....hogsheads | 15,121 |
| Arrived previously.....                     | 1,063  |
| Total.....                                  | 16,184 |

|                                                 |       |        |
|-------------------------------------------------|-------|--------|
| Exported since April 25.....                    | 2,037 |        |
| Exported previously.....                        |       | 2,037  |
| Broken up for baling, city consumption, &c..... | 1,249 | 3,286  |
| Stock on hand and on shipboard August 20.....   |       | 12,898 |

The statistics of the sugar crop of Louisiana are as follows :

The actual yield is estimated to have comprised 459,410 hogsheads, averaging 1,150 pounds, and making an aggregate weight of 528,321,500 pounds. This embraced 889,264 hogsheads of brown sugar, made by the old process, and 70,146 refined, clarified, &c., including cistern bottoms, the whole being the product of 1,291 sugar houses, of which 1,027 were worked by steam and 264 by horse power. The crop of the preceding year amounted to 228,753 hogsheads, weighing 263,065,000 pounds,

showing an increase for the last year of 230,657 hogsheads, or 265,266,500 pounds.

According to our calculations the price of the entire crop has averaged  $4\frac{1}{2}$  against  $5\frac{1}{2}$  c. last year. At this average, and taking the estimate of 1,150 pounds to the hogshead, the aggregate value of the crop of 459,410 hogsheads is \$25,095,271 against \$14,468,627, the product of 228,753 hogsheads last year; or an increase of \$10,626,644. The receipts at the levee since the 1st of September have been 225,356 hogsheads and 7,907 tierces and barrels, against 174,637 hogsheads and 5,976 tierces and barrels last year.

The stock now on hand in this State is estimated at 170,000 hogsheads.

The yield of molasses from the last year's cane crop is estimated at seventy gallons for each 1,000 pounds of sugar, against the same for the previous year, or an aggregate of 36,982,505 gallons against 18,414,550 the year previous, showing an increase of 18,567,955 gallons, or more than as much again. The arrivals at the levee during the season have been 401,404 barrels against 313,260 last year, showing an increase of 88,944 barrels.

The total value of the product, estimated at an average of  $18\frac{1}{2}$  cents per gallon, sums up \$6,703,079 against \$4,235,346 last year, showing an increase of \$2,467,733.

We have prepared the following tables which will be found of interest in connection with the above :

**TOTAL COTTON CROP IN THE UNITED STATES FROM 1825 TO 1861.**

|             | Bales.    |             | Bales.    |             | Bales.    |
|-------------|-----------|-------------|-----------|-------------|-----------|
| 1860-1....  | 3,656,086 | 1848-9....  | 2,728,596 | 1836-7....  | 1,422,930 |
| 1859-60.... | 4,669,770 | 1847-8....  | 2,347,634 | 1835-6....  | 1,360,725 |
| 1858-9....  | 3,851,481 | 1846-7....  | 1,778,651 | 1834-5....  | 1,254,328 |
| 1857-8....  | 3,113,962 | 1845-6....  | 2,100,537 | 1833-4....  | 1,205,394 |
| 1856-7....  | 2,939,519 | 1844-5....  | 2,394,503 | 1832-3....  | 1,070,438 |
| 1855-6....  | 3,527,845 | 1843-4....  | 2,030,409 | 1831-2....  | 987,477   |
| 1854-5....  | 2,847,339 | 1842-3....  | 2,378,875 | 1830-1....  | 1,038,848 |
| 1853-4....  | 2,930,027 | 1841-2....  | 1,683,574 | 1829-30.... | 976,845   |
| 1852-3....  | 3,262,882 | 1840-1....  | 1,634,945 | 1828-9....  | 870,415   |
| 1851-2....  | 3,015,029 | 1839-40.... | 2,177,835 | 1827-8....  | 727,593   |
| 1850-1....  | 2,355,257 | 1838-9....  | 1,360,532 | 1826-7....  | 957,281   |
| 1849-50.... | 2,096,706 | 1837-8....  | 1,801,497 | 1825-6....  | 720,027   |

**STATEMENT SHOWING THE AMOUNT CONSUMED IN THE UNITED STATES AND EXPORTED FROM 1847 TO 1861.**

|               | United States. | Foreign export. |               | United States. | Foreign export. |
|---------------|----------------|-----------------|---------------|----------------|-----------------|
| 1847-8..bales | 616,044        | 1,731,590       | 1854-5..bales | 706,412        | 2,140,927       |
| 1848-9.....   | 642,485        | 2,086,111       | 1855-6.....   | 770,739        | 2,757,106       |
| 1849-50.....  | 613,498        | 1,483,208       | 1856-7.....   | 819,936        | 2,119,583       |
| 1850-1.....   | 485,614        | 1,869,643       | 1857-8.....   | 595,562        | 2,518,400       |
| 1851-2.....   | 699,803        | 2,315,426       | 1858-9.....   | 927,651        | 2,923,830       |
| 1852-3.....   | 803,725        | 2,459,157       | 1859-60.....  | 972,043        | 3,677,727       |
| 1853-4.....   | 737,236        | 2,192,791       | 1860-1.....   | 843,740        | 2,812,346       |

## THE HOP TRADE.

The following in relation to the hop trade is from the trade circular of Messrs. WOOLLTON & SON :

The 15th of September, 1862, dates the freedom of English hops from excise impost, and the abolition of customs duties upon foreign hops. Time alone can show the effect so serious a change will have on the average prices of a produce of increasing importance throughout the world. Our opinion is, that under perfect freedom of trade hops will vary in price in each district of production, only in proportion to their quality and the cost of transport; and that consumers will find prices more uniformly even than has hitherto been known, since the simultaneous failure in the crop at home and abroad is beyond the range of probability. With regard to the present season we remark, that the unfavorable weather of part of the summer has had its influence upon the English crop. From the Worcester district but a very small produce will be received, and scarcely any of fine quality. Many of the best Mid Kent and a few East Kent parishes have been much affected with mould and red rust. The Farnham crop is but moderate; the Country Farnhams, Weald of Kent, and Sussex plantations, produce a very large crop of fine quality. On the continent of Europe the result is very variable. Bohemia and Bavaria do not grow so many hops as last year, but the quality of their crop is most superior. This circumstance will tend to compensate for the injury which has affected some of our best parishes at home. The other districts of Germany have a very large produce, but it is, as usual, deficient in flavor and strength. It is within the experience of some brewers to have bought these hops at low prices, under the name of Bavarians, and when too late to have discovered the difference. From the western provinces of France, where the crop is very large, we shall receive considerable consignments, of exquisite flavor and condition, cultivated and cured with extreme care. The Belgian crop is not so abundant as last year, but there will be no lack of samples of beautiful color and condition. A few plantations are attacked with mould, a malady hitherto unknown in that country. The American crop is large, and the circumstances of that country will lead to important consignments to England. In no single district of production is there a total failure, and in by far the largest portions of plantations at home and abroad the crop is abundant. In our judgment, therefore, the prices asked for new hops are not at present sufficiently reasonable to induce brewers to go largely into stock.

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SALT TRADE OF POLAND.

The salt trade in Poland is a government monopoly, which has existed since the last partition of Poland. Formerly the Duchy of Warsaw received one-half of the income produced by the salt mines at Wieliczka, near Cracow; but these mines having been ceded to Austria, a monopoly of the salt trade of the kingdom was granted to the Polish treasury as a compensation for the revenue abandoned to Austria.

This source of revenue was farmed for some years, and produced on an average, from the year 1816 to 1821, an annual sum of 820,000 roubles.

In the year 1821, the government purchased about 10,000 tons of English salt from the Prussian Government, paying at the rate of 22.10 roubles per ton; and English salt continued to be imported into the king-

dom at the rate of about 3,000 tons per annum, till the year 1834, the price having been reduced to 18.36 roubles per ton. Since that date, the purchase of English salt has entirely ceased, except during the year 1855, when, in consequence of the blockade of the Russian ports, salt was admitted exceptionally into the empire by the Polish frontier.

The Polish treasury, in virtue of a contract with the Austrian Government, which expired in March last, purchased annually from the latter government 650,000 Vienna centners of rock salt, which, including 12 per cent on the weight allowed by the Austrian Government to cover losses, makes, in Polish measure, 2,471,600 poods; the price being 15½ kopecks per pood.

The government salt works within the kingdom, at Ciechocinek, which are now farmed by the Polish Bank, produced, in the year 1860, 319,000 poods of salt, for which the government paid the bank at the rate of 30 kopecks per pood.

The market price of salt, within the kingdom, is 90 kopecks per pood for first quality, and 80 kopecks for inferior, and it is sold exclusively in government depots, and by government officials, the number of depots for the sale being forty. The entire quantity sold during the year 1860 amounted to 2,836,551 poods, the value being 2 503,000 roubles.

In addition to this the imperial treasury paid, in 1860, in accordance with an agreement entered into with the Polish Government in the year 1851, when the Polish customs duties were abandoned, and as compensation for the loss to the treasury on the reduction of the price of salt from the then existing price to the present rate, the sum of 2,199,373 roubles, which, added to the above value of 2,510,000 roubles, makes the total value of 4,709,373 roubles, the receipts of this monopoly.

The expenses of purchase and transport are stated in the Polish budget at 1,953,000 roubles, which, deducted from the above, makes a clear gain to the treasury of 2,746,373 roubles.—*Grocer of London.*

#### SUCCESSFUL RICE GROWING IN THE HAWAIIAN ISLANDS.

The Honolulu *Commercial Advertiser* says that "Messrs. Judd and Wilder have just harvested their first crop of rice, and shipped it on board the Comet for San Francisco. Having heard that the yield was very large, we have requested the particulars, from these gentlemen, who have kindly supplied them. Their land is situated at Waiahole on the windward side of Oahu, in the Koolau district, and embraced 83 taro patches, which have been accurately surveyed, showing an area of 15 acres and 802 feet. The yield of this land was carefully weighed as it was put on board the Comet, and turns out 89,200 pounds or 5,935½ pounds per acre. Extraordinary as this yield may appear, it would have been much greater had not the grain on five acres been badly beaten down and rotted by a severe rain storm, causing a loss on that tract of about one-half its yield. Had not this casualty occurred, the produce of the 15 acres would have exceeded *one hundred thousand pounds*. There can be no mistake in this statement, and the experience of other rice growers in that vicinity will attest it. We congratulate Messrs. J. and W. on this result of their first attempt in rice growing, and doubt not this new branch of industry will prove, in favorable localities, and under foreign management, the most remunerative crop that can be grown."



## RAILWAY, CANAL, AND TELEGRAPH STATISTICS.

1. A RAILWAY THROUGH THE PYRENEES. 2. THE ITALIAN RAILWAY CONTRACT. 3. TOLLS ON RAILROADS. 4. STEEL FOR RAILWAY BARS. 5. THE NEW YORK CANAL.

### A RAILWAY THROUGH THE PYRENEES.

THE successful completion of a Spanish railway across the Pyrenees, and the first which has actually passed over either of the two greatest of the mountainous ranges of Western Europe, may perhaps be deemed of sufficient interest in several respects to deserve a passing notice.

On the 21st of August, 1862, the first railway train, drawn by locomotive engines, crossed the chain of the Cantabrian Pyrenees, over the northern division of the Tudela and Bilbao Railway, from the seaport of Bilbao to the town of Miranda on the Ebro. On the 22d the Minister of Public Works for Spain made his inspection from Miranda to Bilbao, returning on the 23d, the passage across the mountains being made by trains running also in both directions each day. The distance from Bilbao to Miranda is about sixty-six English miles, of which more than forty miles are in ascending from the coast to the summit, which is 2,163 feet above the sea, being the lowest pass in the whole range of the Pyrenees. The northern slopes are almost invariably steep. Here the difficulties to be overcome are concentrated. In the present case they have been surmounted by winding along the shoulders of the mountains, with heavy works of excavation, tunneling, and embankments, until the railway resembles a turnpike road more than such a line as is usually considered should be made to enable a locomotive engine to travel over it with speed and safety, and dragging heavy loads. The average rate of ascent from the sea is 54 feet per mile; the maximum is 76 feet. The predominant curvature has a radius of 300 yards only, and the curves are constantly reverting. There are two points on the line at the entrance of the Concha, or Basin of Ordima (the ancient capital of the province of Biscay,) distant only 600 yards apart measured horizontally across the neck or gorge of the basin, which are distant fully eight and a half miles from each other in travelling along the line, and which differ 456 feet in level. A technical description of the railway would be out of place here, and it would occupy pages to paint in words the grandeur of the mountain scenery, seen as it was seen, in full perfection, under the beautiful sunny sky which beamed over each day's passage of the trains. The changes of view were almost as rapid as the motion of the locomotive engine, owing to the tortuous character of the course, forced upon the engineer by the rugged country traversed. The last glimpse of the northern landscape which the passengers had was over the Gujuli waterfall, and down to a depth of 400 feet to the bottom of the ravine into which it fell; after which the carriages rushed into the summit tunnel to emerge into a wide meadow with a gently falling stream; for the descent on the southern side is very gradual, the average rate from the summit to the Ebro being less than 24 feet to a mile. The valley being

wide the curves are also much easier. The most remarkable point in the descent is the pass or gorge of the Techas, through which flows the river Bazas at the village of Subijana Morillos, where Wellington had his headquarters a night before the battle of Vittoria, in the summer of 1813.

The time occupied by trains between Bilbao and Miranda is two hours and three-quarters. To the powerful locomotives of this railway the sharp reversing curves and steep gradients in ascending from the north to the summit appear to make no difference with trains of seven or eight carriages.

On the occasion of the crossing of the mountains on the 22d of August, there was the usual *cortege* of authorities and officials meeting the Minister of Public Works and the gentlemen of his party. The usual breakfast was set out, but there were no toasts and no speeches. Upon arriving in Bilbao a small steamer took the distinguished group down to the mouth of the river (Nervion) where a good view was obtained of the deep Bay of Bilbao, where it is proposed to construct a breakwater more than a mile in length, within which nearly 1,000 acres of sheltered anchorage will be attainable—in fact, a safety harbor, so much required at the extremity of the Bay of Biscay.

The southern division of the Tudela and Bilbao Railway (which is to be completed by the early part of the year 1863) proceeds eastward from Miranda for nearly ninety miles, always on the right or south bank of the Ebro, for strategic though not for engineering reasons.

The amount expended and to be expended on the 155 miles of the Tudela and Bilbao Railway is about £2,500,000 sterling. The sixty-six miles from Bilbao to Miranda (including twenty miles of the most difficult of railway works known, principally through the Pyrenees) have cost merely for construction more than \$1,000,000; the eighty-nine miles along the Ebro have been made for four-fifths of that sum. The rest of the money has been spent on stations, rolling stock, management, &c. The total with all paid and capital account closed is £16,000 per English mile, and is within the capital of the company. The whole of this capital is Spanish money, mostly subscribed by Bilbao and its commercial connections. Not a share is held out of Spain or the colonies of Spain. No bonds have been issued, nor any mortgages given. The credit of the company and of its directors stood high enough to procure them all the financial aid they wanted; and they were spared the necessity of having to issue their obligations at the ruinous discount common to other railway companies on the Continent. There is a government subvention equivalent to 30 per cent of the capital.

It may be mentioned that this line joins the Northern Railway of Spain at Miranda on the Ebro, which railway is opened from Madrid to the southern slope of the Pyrenees, near Alzazua, about 25 miles N. E. of Vittoria, with the exception of a gap of 30 or 40 miles, including the Guadarama Mountains. By this route the Minister of Public Works (Marquis ARMIGO DE VEGA), returned from Bilbao to Madrid in 18 hours, of which only 12 were by railway. When the above gap is closed as it will be next year, the journey from Bilbao to Madrid will be performed in 14 hours. It will perhaps be some years longer before the Northern Railway of Spain will be completely connected with the French lines at the frontier; but towards the end of next year (1863) there will only remain a portion unfinished equal to four or five hours' travelling by diligence across the Pyrenees, forma-

ing the only exception as to a through route by railway from Paris to Madrid; and, indeed, the distance between these two capitals may then be traversed in thirty-six hours, notwithstanding the above drawback.

In the engineering court at the International Exhibition there is to be seen a very fine and accurate model on a large scale of the Passage of the Tudela and Bilbao Railway across the Pyrenees. It has been pronounced by competent judges to be the most perfect topographical and geological model yet exhibited. An inspection will give a better idea of the character of the railway than any description by words. The engineer-in-chief of the railway, as well as of the proposed breakwater, is Mr. VIGNOLES, F. R. S.

The contractor who executed the works through the Pyrenees, and from Bilbao to Miranda, is the celebrated Mr. BRASSEY. The iron for the railway, the engines, and the vehicles were made in England, as were also nearly all the materials for the station except the mere shell of the building. The chairman of the company is Senor DON PABLO DE EPALZA, who may be considered as holding the highest rank as a Spanish merchant. The managing director is Senor MONTESINO, formerly Director General of Public Works in Spain. He is a member of the Cortes, and one of the commissioners for Spain at the International Exhibition.

On the completion of the Tudela and Bilbao Railway, it will become the great channel through which the corn, wine, and oil of Castile, and the rich agricultural provinces west of Burgos and Valladolid as far as Leon, will find their way for exportation at Bilbao.—*London Times*.

#### THE ITALIAN RAILWAY CONTRACT.

The contract for the great Italian railway undertaking has been awarded to Count BASTOGI. We give below an abstract of the exact provisions of the law. The terms of the concession to Count BASTOGI, favorable as they are, are far more economical for the Italian Government than any of the competing tenders.

By a law of August 21, 1862, the Italian Government, with the previous sanction of Parliament, granted the construction of a large extent of railways in Southern Italy and in Lombardy to Count BASTOGI, the ex-finance minister of the CAVOUR and RICASOLI administrations. The concession includes, according to the text of the law, the following lines:

1. A main trunk which, starting from Ancona, runs along the shore of the Adriatic by Pescara, Termoli, Foggia, Barletta, Bari, Brindisi, and Lecce to Otranto, with a branch from Bari to Taranto on the Ionian Sea—a length together of about 750 kilometres, or 463 English miles.

2. A branch line from Foggia by Ascoli, Conza, and Eboli to Salerno, (where it meets the line already existing to Naples,) about 181 kilometres, or 111 English miles long.

3. A branch from Ceprano (where it falls into the line already constructed from Rome to Naples) by Sora, Celano, Sulmona, and Popoli to Pescara, of about 231 kilometres, or 145 English miles.

4. A branch of 28 kilometres, or 20 English miles, from Voghera to Pavia; and—

5. Another branch, 167 kilometres, or 101 English miles long, from the latter place to Brescia by Cremona. With regard to this latter branch, however, the Lombardo and Central Italian Railway Company are reserved the right of preference, to which they are entitled by a former concession, for its construction.

Altogether, 1,357 kilometres, or about 840 English miles of railways.

The concession is for 99 years, (to begin from the 1st of January, 1868, by which time the whole of them is to be finally constructed,) for all of them except that from Voghera to Pavia and Brescia, for which it is only for 90 years, dating from the 1st of January, 1865, when they are to be opened for traffic.

By the concession the grantee is bound to form, within one month from its date, a Limited Company (*Società Anonima*) under the denomination of the Italian Southern Railway Company (*Società Italiana per le Strade Torrate Meridionali*), with a capital of 100,000,000 of francs, (£4,000,000) in shares, and power of raising, when required, 200,000,000 (£8,000,000) more by issuing debentures; altogether 300,000,000 of francs (£12,000,000.) But as the government grants a subsidy of 20,000,000 of francs, (£800,000,) of which 10,000,000 are in works already executed, and the other 10,000,000 in *public lands*, the capital which the company may eventually have to supply will be 280,000,000 of francs (£11,200,000.)

The government guarantees a gross return of 20,000 francs (£800) per kilometre on the lines from Voghera to Pavia and Brescia, and of 29,000 francs (£1,160) per kilometre on all the Southern lines, during the whole term of the concession.

From Salerno to Naples it is at the option of the grantee either to construct an entirely new line round the E. and N. E. basis of Vesuvius, or to purchase the line already existing through Vietri, Cava, Nocera, and Torra Annonziata, upon which, in case of purchase, the same government guaranty of 29,000 francs per kilometre will be granted as on the lines of new construction.

With regard to the branch from Pescara to Ceperano, which, having to cross the main ridge of the Apennines, offers much greater engineering difficulties than any of the others, it is provided that the government will have to reimburse the grantee any sum exceeding 250,000 francs (£10,000) per kilometre for its construction.

A right is reserved to the State of taking possession, within three years from the date of the concession, of the short branch from Voghera to Pavia by refunding to the company the cost of its construction and the interest of the capital invested in it.

Such are the principal provisions of the law above mentioned. If we are rightly informed, the formation of the company was accomplished by a deed executed before a public notary at Turin, on Thursday, the 18th instant, and the first instalment of 30,000,000 of francs (£1,200,000) on the shares has *already been paid up* by the shareholders, among whom there are many of the best known bankers and landed proprietors in Italy.

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#### TOLLS ON RAILROADS.

THE PEOPLE OF THE STATE OF NEW YORK vs. THE NEW YORK CENTRAL RAILROAD.

We referred to this case and the decision of the Supreme Court, in the

October number of the *Merchants' Magazine*, for 1861, (vol. 4b, page 351.) The facts we then stated to be as follows :

The defendants are a corporation formed under the act of April, 1853. Previous to their organization under this act, they existed (as is well known) as several separate companies, each under its own charter. Part of these companies, by their charters, were required to pay tolls on all property transported by them, and others were required to pay toll only during canal navigation, and others not at all. The act of 1853, under which they were all consolidated, made the defendants subject to all the liabilities of the several companies, and also subject to the liabilities imposed by the general railroad act of 1850, one section of which act required all corporations formed under it, and whose roads were parallel to and within thirty miles of any State canal, to pay tolls on freight. On the 10th of July, 1851, however, an act was passed abolishing tolls on railroads after December 31st, 1851, and repealing all acts and parts of acts inconsistent with that act. This provision the defendants set up as their defense to this action. The plaintiffs, on the contrary, insist that the act of 1851 was unconstitutional and void, because these tolls formed "part of the revenues of the State canals," and that by the constitution the Legislature is prohibited from selling, leasing, or otherwise disposing of the canals, or their freight, or their revenue. The point, therefore, at issue is, whether or not this act of the Legislature abolishing tolls is unconstitutional. Or, in other words, the plaintiff must make out, before his claim can be considered established, first, that these railroad tolls are a part of the "revenues of the State canals," and second, that the constitution forbids the impairing of these revenues.

On these facts the Supreme Court held that this act of 1851 is not unconstitutional, and that the defendants, therefore, are not liable to pay tolls. The case was then taken on appeal to the Court of Appeals, and argued at the last April term, and we now have the decision of that court affirming the judgment of the Supreme Court. Thus this question, which should never have been raised on behalf of the State, may be considered settled.

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#### STEEL FOR RAILWAY BARS.

From the consideration which the manufacture of iron, semi-steel, and steel, by various new processes is receiving, it is not at all improbable that we shall before long see companies laying down something for rails besides ordinary wrought or rolled bars. Rails have been made from steel by the Bessemer process for \$112 per ton, which are claimed to be so tough and hard that no amount of wear will destroy them. The homogeneous metal from Bessemer's process is said to be fifty per cent stronger than the best iron in the English market. In the manufacture of rails, one object has been to increase the hardness of the wearing surface, and thus to prolong their life. This has been done by rolling a steel bar along with the iron bars of the rail pile so as to make the head or wearing surface of the rail. Another mode of accomplishing the same result is casehardening the upper surface of the rail. Neither of these processes have been thus far able to prevent the lamination of the lower part of the rail. The Bessemer process ought, it strikes us, to give a uniform

rail, which, although expensive compared with the ordinary iron bar, would be admirably suited for railway work. In making rails by the above method, an ingot of steel was cast nine inches square and twenty-six inches long; this was hammered to six inches square and five feet long, afterwards rolled to the usual form and length. Rails made thus show no tendency to laminate; are extremely tough, and exceed in strength the best quality of iron; the tensile strength being as high as forty tons per square inch. There appears to be no reason why cast steel should not thus be applied for railway bars. Care should be taken, however, to use an elastic chair, and to have the track laid in the best manner, that the full advantage of the more refined material may be obtained.—*The American Railway Times*.

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#### THE NEW YORK CANALS.

The Albany *Evening Journal* states that the gross canal tolls for the fiscal year \$4,810,476, to which we may add \$40,000 for miscellaneous receipts, and we have a round sum of \$4,850,000, which is an increase over any former year of \$1,150,000. The net revenue for the year, deducting the charges for collection, superintendence, and repairs, will stand at \$4,050,000, very nearly. The constitutional charges upon the canal revenues the next fiscal year, which this sum will meet, amount to \$3,366,242, and among these charges are \$550,000 to the general fund, to pay the interest on the general fund debt and for the support of government; very nearly \$1,400,000 to the sinking funds, to extinguish the principal of the canal debt, and the residue to pay the accruing interest for the year on the canal stock debt. Aside from these charges, which are appropriated, there will be an overplus of about \$630,000, to appropriate to such purposes as may be designated. In January and June last, the State paid off \$2,200,000 of its canal debt, and will now pay more, not due, if the holders will take it at a fair premium.

In 1858 and 1859 the gross receipts of the canals were only \$3,931,034 51, and the net revenue, \$1,955,326 64. At that time the average cost of maintenance was 51 per cent of the tolls, at present it is less than 17 per cent. Commercially speaking, the Mississippi River now runs through the lakes and empties into the Hudson at Albany.

## STATISTICS OF AGRICULTURE.

1. THE CONSUMPTION OF MILK. 2. THE WHEAT CROP FOR 1862. 3. PRODUCTIONS OF AGRICULTURE FOR 1850 AND 1860. 4. AGRICULTURAL STATISTICS FOR IRELAND IN 1862. 5. TEA IN CHINA. 6. WHEAT GROWING IN CANADA. 7. COMPOSITION OF MILK AT DIFFERENT TIMES OF DAY.

### THE CONSUMPTION OF MILK.

TABLE SHOWING THE PRODUCE OF MILK IN THIRTEEN STATES FOR THE YEAR ENDING JUNE 30, 1860, AND ALSO THE QUANTITY USED AS FOOD AND THE AMOUNT MANUFACTURED INTO BUTTER AND CHEESE FOR EACH STATE.

| States.       | Milk cows.<br>Number. | Total produce.<br>Quarts. | Used as food.<br>Quarts. | Manf. butter.<br>Quarts. | Manuf. cheese.<br>Quarts. |
|---------------|-----------------------|---------------------------|--------------------------|--------------------------|---------------------------|
| Maine.....    | 147,884               | 265,165,200               | 172,018,085              | 146,097,262              | 7,054,858                 |
| N. Hampshire  | 94,880                | 170,784,000               | 75,052,328               | 86,959,550               | 8,772,122                 |
| Vermont....   | 171,698               | 309,056,400               | 81,288,157               | 196,022,925              | 31,745,318                |
| Massachusetts | 144,492               | 260,085,600               | 135,555,626              | 103,724,200              | 20,805,774                |
| Rhode Island. | 19,700                | 35,460,000                | 21,570,272               | 15,193,128               | 696,600                   |
| Connecticut.. | 98,877                | 177,978,600               | 63,585,989               | 99,071,856               | 15,320,755                |
| New York...   | 1,123,623             | 2,022,521,400             | 543,030,641              | 1,288,695,987            | 190,794,772               |
| Pennsylvania. | 673,547               | 1,212,384,600             | 553,828,525              | 648,697,450              | 9,858,695                 |
| New Jersey..  | 138,818               | 249,872,400               | 109,868,653              | 139,287,811              | 715,936                   |
| Delaware...   | 22,595                | 40,671,000                | 22,763,870               | 17,881,275               | 25,855                    |
| Maryland...   | 94,463                | 170,033,400               | 96,286,486               | 73,714,130               | 82,784                    |
| Wisconsin...  | 193,996               | 349,192,800               | 174,214,114              | 170,638,162              | 4,340,524                 |
| Virginia....  | 330,627               | 595,128,600               | 405,561,119              | 188,463,968              | 1,103,513                 |
| Total.....    | 3,254,630             | 5,858,334,000             | 2,394,618,866            | 3,172,447,704            | 291,267,481               |

According to the above statistics fifty-four per cent of the entire produce of milk is made into butter. The manufacture of this indispensable article of food has received the attention of our best chemists as well as our most skill manufacturers, and is now made in a very perfect manner. It is exported in large quantities and found in almost every port in a perfectly sweet condition. It is also kept fit for table use many months.

The dairy of the United States also produces an excellent quality of cheese, to the methods of the manufacture and care of which nothing need be added to the previous reports of the agricultural bureau. One point, however, cannot escape notice. In the thirteen above named States the milk used in the manufacture of cheese is only about one-twentieth of the annual produce of milk, it being only five per cent. The cheese crop consumes only about one-eleventh as much as the butter crop. Its value is only about one-tenth as much.

We find also from the above table that forty-one per cent of the annual produce of milk is consumed as food. A large proportion of this milk is consumed within a few hours after milking, but a much larger proportion, especially that for transportation, is kept for a considerable time. A much greater quantity would be sold could it be preserved a sufficient length of time to get it to market.

### THE VALUE OF THE MILK CROP.

The value of the milk crop may be fairly estimated from the value of milk used in the manufacture of butter. Fifty-four per cent of the entire

crop in the thirteen States before-named is made into butter; hence, the value of butter form a very correct basis for ascertaining the true value of milk. In the following table the prices of milk given for each State have been derived by taking the average prices given for the cost value of butter at the places where it is made, and extended over a period of twelve years. The localities were selected from various sections of each State. This method was pursued with all the States except Wisconsin, which extended over a period of only three years.

I am aware that these values, with the exception of Delaware, fall below the generally estimated value of milk; yet I am confident that if there is any variation from the true value it is that I have overestimated them. *The value of milk in the United States will average less than one cent and five mills per quart.*

The following is a correct statement of the value of milk per quart, the total value of the crop, together with the amount consumed in each of the named States.

| States.             | Price per qt.<br>Cents. | Value consumed. | Total value.    |
|---------------------|-------------------------|-----------------|-----------------|
| Maine .....         | 1.36                    | \$1,523,377 96  | \$3,606,246 72  |
| New Hampshire ..... | 1.44                    | 1,080,753 52    | 2,459,289 60    |
| Vermont .....       | 1.28                    | 1,040,488 41    | 3,955,921 92    |
| Massachusetts ..... | 1.68                    | 2,277,334 52    | 4,869,438 08    |
| Rhode Island .....  | 1.64                    | 353,752 46      | 518,514 00      |
| Connecticut .....   | 1.60                    | 1,017,375 82    | 2,847,657 60    |
| New York .....      | 1.36                    | 7,885,216 72    | 27,506,291 04   |
| Pennsylvania .....  | 1.28                    | 7,089,005 12    | 15,518,522 88   |
| New Jersey .....    | 1.76                    | 1,933,688 29    | 4,396,764 24    |
| Delaware .....      | 2.00                    | 455,277 40      | 813,420 00      |
| Maryland .....      | 1.20                    | 1,155,487 83    | 2,040,400 80    |
| Wisconsin .....     | 1.48                    | 2,578,368 89    | 5,160,053 44    |
| Virginia .....      | 1.12                    | 4,542,284 53    | 6,665,440 32    |
| Total .....         | ....                    | \$32,432,361 47 | \$79,857,980 64 |

Milk is worth the most in Delaware and the least in Virginia. The small extent of the territory of Delaware, and its proximity to market, will readily account for the high price of its milk crop.

New York produces as much milk in value as the six New England States, together with New Jersey, Delaware, and Maryland.

New York and Pennsylvania produce more milk than the eleven remaining States, and nearly one-third the entire crop of the United States.

It is remarkable that Maine, New Hampshire, Vermont, Connecticut, New Jersey, and Maryland consume about the same amount in value. Pennsylvania consumes nearly as much as New York, although she produces but little more than half in value.

The value of milk seems to be determined by its proximity to market. It cannot be transported under the present treatment like many other articles of produce.

With the above tables as a basis, it is estimated that the entire milk crop of the United States for the year 1860 exceeded \$160,000,000.



|                                      |                     |
|--------------------------------------|---------------------|
| Amount consumed as food.....         | \$90,000,000        |
| Amount manufactured into butter..... | 65,000,000          |
| Amount manufactured into cheese..... | 5,000,000           |
| Total.....                           | <hr/> \$160,000,000 |

The above is the cost of the milk. The additional value produced by the manufacture and transportation of butter and cheese will make the value of the dairy of the United States for the year 1860 exceed \$200,000,000.

This estimate is made on the value of milk at 1.48 cent per quart. Should the common estimate of two cents per quart be adopted, the value of the dairy will be upwards of \$260,000,000.

This estimate is also made on assuming the average produce of each cow to be 1,800 quarts of milk. Should the annual average produce of cows be raised to 2,200 each, as it ought to be, the value of the dairy products of the country would be about \$320,000,000.—*Patent Office Report.*

#### THE WHEAT CROP FOR 1862.

In our last issue we gave our usual statement of the export of bread-stuffs for the year ending September 30, 1862. Considering the condition of our country, (the total suspension of the cotton trade,) the probable export of these articles the coming year is a question of vital importance.

As to the present crop in the United States, there is but one voice—it is unusually abundant. Our overflowing granaries would almost feed the world.

In Europe they have not been thus favored—England's crop is probably much below the average; France is better off, but not enough so to supply her own wants, while Russia will be able to spare less than usual. The following, from the *Gardners' Chronicle and Agricultural Gazette*, will give a fair idea of England's position:

"There can be no doubt that the wheat harvest crop of 1862 is one of the worst we have had for many years. There has always hitherto, on the occasion of these annual returns, been, among two hundred correspondents, a considerable proportion who have declared the crop to be over average, even where the preponderance of opinion and the ultimate experience lay all the other way. We have never before had to report that of one hundred and eight-eight reporters there is only one who speaks of the crop in his neighborhood as being 'very good;' and he from an Irish county, whose wheat crop has no great influence on the general supply of the year. And it is a still worse report of the information which has reached us that, out of 188, there are no fewer than 150 who declare the crop to be inferior; only 37 who anticipate an ordinary return. Storms of wind, causing the plant to be roots fallen before the seed was fully formed—'red gum' and 'mildew,' the consequence of an unkindly summer, have produced their natural result—a deficient harvest. A correspondent, who very properly adopted the signature of 'Common Sense,' fairly describes our position in the following paragraph:

"I have often, in former years, observed the curious unwillingness shown by the public, (that is, the newspapers,) to acknowledge the unpleasant fact of a deficient harvest.

“Our summer throughout England has been cold and wet. The consequence—namely, a deficient harvest—is as certain as that two and two make four; yet I observe the newspapers persist in inserting nonsensical paragraphs as to the probability of an average produce, which one should think the slightest consideration would show to be now impossible.”

The following is the tabular epitome of the returns, and it entirely bears out the above prediction of ‘Common Sense:’

| Crops.      | No. | Over av'ge. | Average. | Under av'ge. | Total rep'ts. |
|-------------|-----|-------------|----------|--------------|---------------|
| Wheat.....  | 1   | 37          | 150      | 188          |               |
| Barley..... | 26  | 108         | 53       | 187          |               |
| Oats.....   | 37  | 108         | 55       | 200          |               |
| Beans.....  | 42  | 80          | 13       | 135          |               |
| Peas.....   | 10  | 73          | 23       | 106          |               |

It results from these figures that the wheat crop is very inferior, that barley is barely an average crop, that oats are a fair average, that beans are generally good, and peas on the whole a fair crop.”

The *Mark Lane Express*, (the best of authority,) of the last of August, says: “The better we become acquainted with the wheat crop the less satisfactory does it appear. Beyond the long reported blight, there is much mildew, which is a lasting hindrance to full maturity, and the yield proves below the expectations of those who were most in favor of a good crop. As to the early Talavera, it is a generally admitted failure, and the white qualities have seriously suffered.”

The London *Economist* tells pretty much the same story.

But we think the best evidence of a short crop in Europe will be found in the following table from the London *Economist* of September 27:

#### WEEKLY REPORT OF SALES OF WHEAT.

|                                    | Quarters.  |
|------------------------------------|------------|
| Sold last week.....                | 86,447     |
| Corresponding week in 1861.....    | 144,079    |
| “ “ 1860.....                      | 53,655     |
| “ “ 1859.....                      | 131,574    |
| “ “ 1858.....                      | 135,381    |
| Weekly average, September 20 ..... | 54 s. 9 d. |
| “ “ “ 13 .....                     | 55 10      |
| “ “ “ 6 .....                      | 58 4       |
| “ “ August 30 .....                | 58 4       |
| “ “ “ 23 .....                     | 57 9       |
| “ “ “ 16 .....                     | 57 4       |
| Six weeks' average.....            | 57 1       |
| Same time last year.....           | 52 9       |

It will here be seen (and the report for each preceding week is to the same effect,) that, although the price of wheat in London is higher now than at the same time last year, the sales have been only about one half the amount, showing, evidently, that in the opinion of the holders there is a short crop, and that they are holding on and waiting for higher prices.

## PRODUCTIONS OF AGRICULTURE FOR 1850 AND 1860.

We find in the Report of the Eighth Census many interesting statistics showing the growth of the United States during the ten years in agriculture and agricultural productions, from which we have prepared the following.

The table below gives the amount of land under cultivation in 1850 and 1860 in each State and Territory, with the aggregate amounts:

## LANDS IMPROVED IN 1850 AND 1860.

|                            | Acres.      |             |
|----------------------------|-------------|-------------|
|                            | 1850.       | 1860.       |
| Alabama.....               | 4,435,614   | 6,462,987   |
| Arkansas.....              | 781,530     | 1,933,036   |
| California.....            | 32,454      | 2,430,882   |
| Connecticut.....           | 1,768,178   | 1,830,808   |
| Delaware.....              | 580,862     | 637,065     |
| Florida.....               | 349,049     | 676,464     |
| Georgia.....               | 6,378,479   | 8,062,758   |
| Illinois.....              | 5,039,545   | 13,251,473  |
| Indiana.....               | 5,046,543   | 8,161,717   |
| Iowa.....                  | 824,682     | 3,780,253   |
| Kansas.....                | .....       | 372,835     |
| Kentucky.....              | 5,968,270   | 7,644,217   |
| Louisiana.....             | 1,590,025   | 2,734,901   |
| Maine.....                 | 2,039,596   | 2,677,216   |
| Maryland.....              | 2,797,905   | 3,002,269   |
| Massachusetts.....         | 2,133,436   | 2,155,512   |
| Michigan.....              | 1,929,110   | 3,419,861   |
| Minnesota.....             | 6,035       | 554,397     |
| Mississippi.....           | 3,444,358   | 5,150,008   |
| Missouri.....              | 2,938,425   | 6,246,871   |
| New Hampshire.....         | 2,251,488   | 2,367,039   |
| New Jersey.....            | 1,767,991   | 1,944,445   |
| New York.....              | 12,408,964  | 14,376,397  |
| North Carolina.....        | 5,453,975   | 6,517,284   |
| Ohio.....                  | 9,851,493   | 12,665,587  |
| Oregon.....                | 132,857     | 895,375     |
| Pennsylvania.....          | 8,623,619   | 10,463,306  |
| Rhode Island.....          | 356,487     | 329,884     |
| South Carolina.....        | 4,072,551   | 4,572,060   |
| Tennessee.....             | 5,175,173   | 6,897,974   |
| Texas.....                 | 643,976     | 2,649,207   |
| Vermont.....               | 2,601,409   | 2,758,443   |
| Virginia.....              | 10,360,135  | 11,435,954  |
| Wisconsin.....             | 1,045,499   | 3,746,036   |
| Total States.....          | 112,833,813 | 162,804,521 |
| Territories.               |             |             |
| Columbia, District of..... | 16,267      | 17,474      |
| Dakota.....                | .....       | 2,115       |
| Nebraska.....              | .....       | 122,582     |
| New Mexico.....            | 166,201     | 149,415     |

|                        | Acres.      |             |
|------------------------|-------------|-------------|
|                        | 1850.       | 1860.       |
| Utah .....             | 10,333      | 82,280      |
| Washington.....        | .....       | 83,022      |
| Total Territories..... | 198,801     | 456,868     |
| Aggregate .....        | 113,032,614 | 163,261,389 |

The total cash value of farms and live stock at the time of each census was as follows :

|                   | 1850.           | 1860.           |
|-------------------|-----------------|-----------------|
| Farms ..... value | \$3,271,575,426 | \$6,650,872,507 |
| Live stock.....   | 544,180,516     | 1,107,490,216   |

In the last (October) number of the *Merchants' Magazine*, will be found tables showing the production of breadstuffs in 1840, 1850, and 1860. We give below the production of tobacco, ginned cotton, and wool :

PRODUCTION OF TOBACCO AND GINNED COTTON.

| States.             | Tobacco.         |                  | Ginned cotton.   |                  |
|---------------------|------------------|------------------|------------------|------------------|
|                     | 1850.<br>Pounds. | 1860.<br>Pounds. | 1850.<br>*Bales. | 1860.<br>*Bales. |
| Alabama .....       | 164,990          | 221,284          | 564,429          | 997,978          |
| Arkansas.....       | 218,936          | 999,757          | 65,344           | 367,485          |
| California .....    | 1,000            | 3,150            | .....            | .....            |
| Connecticut.....    | 1,267,624        | 6,000,133        | .....            | .....            |
| Delaware.....       | .....            | 9,699            | .....            | .....            |
| Florida .....       | 998,614          | 758,015          | 45,131           | 63,322           |
| Georgia.....        | 423,924          | 919,316          | 499,091          | 701,840          |
| Illinois.....       | 841,394          | 7,014,230        | .....            | 6                |
| Indiana.....        | 1,044,620        | 7,246,132        | 14               | .....            |
| Iowa .....          | 6,041            | 312,919          | .....            | .....            |
| Kansas.....         | .....            | 16,978           | .....            | .....            |
| Kentucky .....      | 55,501,196       | 108,102,433      | 758              | 4,092            |
| Louisiana.....      | 26,878           | 40,610           | 178,737          | 722,218          |
| Maine.....          | .....            | 1,583            | .....            | .....            |
| Maryland.....       | 21,407,497       | 38,410,965       | .....            | .....            |
| Massachusetts.....  | 138,246          | 3,233,198        | .....            | .....            |
| Michigan .....      | 1,245            | 120,621          | .....            | .....            |
| Minnesota.....      | .....            | 38,510           | .....            | .....            |
| Mississippi .....   | 49,960           | 127,736          | 484,292          | 1,195,699        |
| Missouri.....       | 17,113,784       | 25,086,196       | .....            | 100              |
| New Hampshire....   | 50               | 21,281           | .....            | .....            |
| New Jersey.....     | 310              | 149,485          | .....            | .....            |
| New York.....       | 83,189           | 5,764,582        | .....            | .....            |
| North Carolina....  | 11,984,786       | 32,853,250       | 50,545           | 145,514          |
| Ohio.....           | 10,454,449       | 25,528,972       | .....            | .....            |
| Oregon .....        | 325              | 215              | .....            | .....            |
| Pennsylvania.....   | 912,651          | 3,181,586        | .....            | .....            |
| Rhode Island.....   | .....            | 705              | .....            | .....            |
| South Carolina..... | 74,285           | 104,412          | 300,901          | 353,413          |

\* Of 400 pounds each.

|                       | Tobacco.    |             | Ginned cotton. |            |
|-----------------------|-------------|-------------|----------------|------------|
|                       | 1860.       | 1860.       | 1860.          | 1860.      |
| Tennessee.....        | 20,148,932  | 38,931,277  | 191,532        | 227,450    |
| Texas.....            | 66,897      | 98,016      | 58,072         | 405,100    |
| Vermont.....          | .....       | 12,153      | .....          | .....      |
| Virginia.....         | 56,803,227  | 123,967,757 | 3,947          | 12,727     |
| Wisconsin.....        | 1,268       | 87,595      | .....          | .....      |
| Total.....            | 199,736,318 | 429,364,751 | 2,445,793      | 5,196,944  |
| Territories.          |             |             |                |            |
| Columbia, District of | 7,800       | 15,200      | .....          | .....      |
| Nebraska.....         | ....        | 3,801       | .....          | .....      |
| New Mexico.....       | 8,467       | 6,999       | .....          | .....      |
| Utah.....             | 70          | 10          | .....          | 1,133      |
| Washington.....       | ....        | 10          | .....          | .....      |
| Total.....            | 16,337      | 26,020      | .....          | 1,133      |
| Aggregate....         | 199,752,655 | 429,390,771 | 2,445,793      | *5,198,077 |

## PRODUCTION OF WOOL.

| States.             | Pounds.    |            |
|---------------------|------------|------------|
|                     | 1860.      | 1860.      |
| Alabama.....        | 657,118    | 681,404    |
| Arkansas.....       | 182,595    | 410,285    |
| California.....     | 5,520      | 2,681,922  |
| Connecticut.....    | 497,454    | 335,986    |
| Delaware.....       | 57,768     | 50,201     |
| Florida.....        | 23,247     | 58,594     |
| Georgia.....        | 990,019    | 946,229    |
| Illinois.....       | 2,150,113  | 2,477,563  |
| Indiana.....        | 2,610,287  | 2,466,264  |
| Iowa.....           | 373,898    | 653,036    |
| Kansas.....         | .....      | 22,593     |
| Kentucky.....       | 2,297,433  | 2,325,124  |
| Louisiana.....      | 109,897    | 296,187    |
| Maine.....          | 1,364,034  | 1,495,063  |
| Maryland.....       | 477,438    | 491,511    |
| Massachusetts.....  | 585,136    | 377,267    |
| Michigan.....       | 2,043,283  | 4,062,858  |
| Minnesota.....      | 85         | 22,740     |
| Mississippi.....    | 559,619    | 637,729    |
| Missouri.....       | 1,627,164  | 2,069,778  |
| New Hampshire.....  | 1,108,476  | 1,160,212  |
| New Jersey.....     | 375,396    | 349,250    |
| New York.....       | 10,071,301 | 9,454,473  |
| North Carolina..... | 970,738    | 883,473    |
| Ohio.....           | 10,196,371 | 10,648,161 |
| Oregon.....         | 29,086     | 208,943    |
| Pennsylvania.....   | 4,481,570  | 4,752,523  |

\* See *Merchants' Magazine*, vol. 47, page 358.

| States.                    | Pounds.    |            |
|----------------------------|------------|------------|
|                            | 1860.      | 1861.      |
| Rhode Island.....          | 129,692    | 90,699     |
| South Carolina.....        | 487,233    | 427,102    |
| Tennessee.....             | 1,364,378  | 1,400,508  |
| Texas.....                 | 131,917    | 1,497,748  |
| Vermont.....               | 3,400,717  | 2,975,544  |
| Virginia.....              | 2,860,765  | 2,509,443  |
| Wisconsin.....             | 253,963    | 1,011,915  |
| Total States.....          | 52,474,311 | 59,932,328 |
| Territories.               |            |            |
| Columbia, District of..... | 525        | 100        |
| Nebraska.....              | .....      | 3,312      |
| New Mexico.....            | 32,901     | 479,245    |
| Utah.....                  | 9,322      | 75,638     |
| Washington.....            | ....       | 20,720     |
| Total Territories.....     | 42,648     | 579,015    |
| Aggregate.....             | 52,516,959 | 60,511,343 |

#### AGRICULTURAL STATISTICS OF IRELAND IN 1862.

The general abstracts showing the acreage under the several crops and the number of live stock in each county and province of Ireland for the present year, taken under the direction of Mr. DONNELLY, the Registrar General, have been printed. They have been compiled from the summaries made by 4,000 enumerators, selected from the constabulary and the metropolitan police, who have been everywhere readily assisted by the landed proprietors, the clergy of all denominations, and the tenant farmers. The inquiries commenced on the 2d of June, and terminated in the middle of July, during which period the particulars of the acreage under crops and the number of live stock on nearly 600,000 holdings are enumerated.

Comparing the returns of this year with last, there is a considerable decrease both in the quantity of land under tillage and in the number of live stock. The total number of acres under cereal crops in 1861 was 2,624,957; in 1862 it is 2,552,223, showing a decrease of 72,734 acres. The decrease has occurred chiefly in wheat and oats—in the former, amounting to 43,427, and in the latter, 24,423 acres. There is an increase of 1,000 acres in peas and beans. The net decrease in cereals, comparing 1862 to 1861, is 28 per cent.

There is a decrease to about the same extent in green crops—that is, 74,785 acres. There is an increase in turnips of 43,045 acres; in mangold and beet, of 296 acres; in cabbage, of 491 acres; carrots, parsnips, vetches, and rape have decreased. The most serious matter is the decrease of land under potatoes, which amounts to 116,187 acres. Meadow and clover covered 1,552,829 acres in 1862, being an increase of 6,623 acres above the extent in 1861. We have about 150,000 acres under flax,

which is 2,000 more than last year. The total decrease of land under crops in 1862 is 138,841 acres.

Of this area Mr. DONNELLY says 117,832 would seem to have merged into grass, 1,066 were returned as under woods and plantations, and 870 went to increase the fallow, leaving 19,000 acres of pasture land unstocked. The quantity which is returned as "bog and waste" is confined entirely to Connaught. The distress which prevailed in some districts last spring prevented the small holders in many instances from putting in their crops as usual. The dearth of labor has probably operated in other districts in lessening the quantity of tillage.

The same unfavorable influences have tended to diminish the number of live stock. The small farmers were obliged to sell their horses, cows, sheep, and pigs in order to get food. The falling off is the result of a temporary pressure, which caused the cultivators of the soil to live upon their capital. Since last year horses have diminished by 9,787, cattle by 221,292, sheep by 100,169; pigs have increased by 49,743. The total number of live stock in Ireland is worth £1,849,153, and is less valuable than the total number last year to the amount of £1,564,710, consequently the farmers are so much the poorer. Stock to the amount of a million and-a-half sterling have gone since last year to pay their rents and support their families. In this estimate horses are valued at £8 each; cattle, £6 10s.; sheep, 22s.; pigs, 25s.

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#### TEA IN CHINA.

There are few subjects connected with the vegetable kingdom which have attracted such a large share of public notice as the tea-plant of China. Its cultivation on the Chinese hills, the particular species or variety which produces the black and green teas of commerce, and the method of preparing the leaves have always been objects of peculiar interest. The jealousy of the Chinese Government, in former times, prevented foreigners from visiting any of the districts where tea is cultivated; and the information derived from the Chinese merchants, even scanty as it was, was not to be depended upon. And hence we find our English authors contradicting each other; some asserting that the black and green teas are produced by the same variety, and that the difference in color is the result of a different mode of preparation; while others say that the black teas are produced from the plant called by botanists *Thea Bohea*, and the green from *Thea veridis*, both of which we have had for many years in our gardens in England. During my travels in China since the last war, I have had frequent opportunities of inspecting some extensive tea districts in the black and green tea countries of Canton, Fokien, and Chekiang: the result of these observations is now laid before the reader. It will prove that even those who have had the best means of judging have been deceived, and that the greater part of the black and green teas which are brought yearly from China to Europe and America are obtained from the same species or variety, namely from the *Thea veridis*. Dried specimens of this plant were prepared in the districts I named, by and are now in the herbarium of the Horticultural Society of myself London, so that there can be no longer any doubt upon the subject. In the various parts of the Canton provinces where I had an opportunity of see-

ing tea cultivated, the species proved to be the *Thea Bohea*, or what is commonly called the black tea plant. In the green tea districts of the north—I allude more particularly to the province of Chekiang—I never met with a single plant of this species which is so common in the fields and gardens near Canton. All the plants in the green tea country near Ningpo, on the islands of the Chusan Archipelago, and in every part of the province which I have had an opportunity of visiting, proved, without exception, to be the *Thea viridis*. Two hundred miles further to the northwest, in the province of King-nan, and only a short distance from the tea hills in that quarter, I also found in gardens this species of tea. Thus far my actual observations exactly verified the opinions I had formed on the subject before I left England, viz, that the black teas were prepared from the *Thea Bohea*, and the green from *Thea viridis*. When I left the north, on my way to the city of Foochow, on the river Min, in the province of Fokien, I had no doubt that I should find the tea hills there covered with the other species, *Thea Bohea*, from which we generally suppose the black teas are made; and this was the more likely to be the case as this species actually derives its specific name from the Bohea hills in this province. Great was my surprise to find all the plants on the tea hills near Foochow exactly the same as those in the green tea districts of the North. Here were, then, green tea plantations on the black tea hills, and not a single plant of the *Thea Bohea* to be seen. Moreover, at the time of my visit, the natives were busily employed in the manufacture of black teas. Although the specific differences of the tea-plant were well known to me, I was so much surprised, and may say amused, at this discovery, that I procured a set of specimens for the herbarium, and also dug up a living plant, which I took northward to Chekiang. On comparing it with those which grow on the green tea hills, no difference whatever was observed. It appears, therefore, that the black and green teas of the Northern districts of China (those districts in which the greater part of the teas for the foreign markets are made) are both produced from the same variety, and that that variety is the *Thea viridis*, or what is commonly called the green tea-plant. On the other hand, those black and green teas which are manufactured in considerable quantities in the vicinity of Canton, are obtained from the *Thea Bohea*, or black tea.

In the green tea districts of Chikiang, near Ningpo, the first crop of leaves is generally gathered about the middle of April. This consists of the young leaf buds just as they begin to unfold, and forms a fine and delicate kind of young hyson, which is held in high estimation by the natives, and is generally sent about in small quantities as presents to their friends. It is a scarce and expensive article, and the picking off the leaves in such a young state does considerable injury to the tea plantation. The summer rains, however, which fall copiously about this season, moisten the earth and air; and if the plants are young and vigorous, they soon push out fresh leaves. In a fortnight or three weeks from the time of the first picking, the shrubs are again covered with fresh leaves, and are ready for the second gathering, which is the most important of the season. The third and last gathering, which takes place as soon as new leaves are formed, produces a very inferior kind of tea, which is rarely sent out of the district. The mode of gathering and preparing the leaves of the tea-plant is very simple. We have been so long accus-



tomed to magnify and mystify everything relating to the Chinese, that in all their arts and manufactures, we expect to find some peculiar practice, when the fact is, that many operations in China are more simple in their character than in most other parts of the world. To rightly understand the process of rolling and drying the leaves, which I am about to describe, it must be borne in mind that the grand object is to expel the moisture, and at the same time to retain as much as possible of the aromatic and other desirable secretions of the species. The system adopted to attain this end is as simple as it is efficacious. In the harvest seasons the natives are seen in little family groups on the side of every hill, when the weather is dry, engaged in gathering the tea leaves. They do not seem so particular as I imagined they would have been in this operation, but strip the leaves off rapidly and promiscuously, and throw them all into round baskets, made for the purpose out of split bamboo or ratan. In the beginning of May, when the principal gathering takes place, the young seed-vessels are about as large as peas. These are also stripped off and mixed with the leaves; it is these seed-vessels which we often see in our tea, and which has some slight resemblance to young capers. When a sufficient quantity of leaves are gathered, they are carried home to the cottage or barn, where the operation of drying is performed.

This is minutely described, and the author continues:—

I have stated that the plants grown in the district of Chekiang produce green teas, but it must not be supposed that they are the green teas which are exported to England. The leaf has a much more natural color, and has little or none of what we call the “beautiful bloom” upon it, which is so much admired in Europe and America. There is now no doubt that all these “blooming” green teas which are manufactured at Canton are dyed with Prussian blue and gypsom, to suit the taste of the foreign “barbarians;” indeed, the process may be seen any day during the season, by those who give themselves the trouble to seek after it. It is very likely that the same ingredients are also used in dyeing the northern green teas for the foreign market; of this, however, I am not quite certain. There is a vegetable dye obtained from *Isatis indigotica* much used in the northern districts, and called *Teinseng*; and it is not unlikely that it may be the substance which is employed. The Chinese never use these dyed teas themselves, and I certainly think their taste in this respect is more correct than ours. It is not to be supposed that the dye used can produce any very bad effects upon the consumer, for, had this been the case, it would have been discovered before now; but if entirely harmless or inert, its being so must be ascribed to the very small quantity which is employed in the manufacture.

In short, the black and green teas which are generally exported to England and the United States from the northern provinces of China, are made from the same species; and the difference of color, flavor, &c., is solely the result of the different modes of preparation.—*FORTUNE'S Wanderings in China.*

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#### WHEAT GROWING IN CANADA.

The *Montreal Witness* says: “An analysis of our recent census returns shows that every county in Upper Canada, with but one exception, raises

more wheat than is required for the consumption of its own population, assuming that each man, woman, and child consumes on an average five bushels of wheat, or about a barrel of flour per annum. The county of Prescott alone, on the extreme eastern boundary of the Upper Province, fails to exceed the growth of five bushels per head of the population.

"The amount of wheat in Upper Canada, in 1860, was—of fall wheat, 7,537,651 bushels; of spring, 17,082,774 bushels; total, 24,620,425 bushels. The total production in 1851 of both varieties, according to the census of 1852, was 12,882,550 bushels. While the population had increased 46 per cent, the production of wheat had increased nearly 100 per cent.

"The county of Huron occupies the first place as regards the actual quantity of wheat produced. But the first place, as a wheat-growing county, belongs to Peel, if we take the amount raised in proportion to the population, which is the fairest method of determining what districts have been contributing most to the wealth of Canada, so far as the production of this, its grand agricultural staple, is concerned. We have made calculations from the census returns of the quantity of wheat raised by each county in 1860, in proportion to its population, and the following are the results: The county of Peel raised 934,139 bushels, or  $34\frac{1}{2}$  bushels per head of its population; the county of Huron raised almost 34 per head; Perth, 32; Victoria, 31; Simcoe, 30; Waterloo, 29; Durham, Ontario, each 28; Wellington, 27; Halton, 26; Brant, 24; Bruce, 23; Oxford, 23; Middlesex, 23 (if the population of London be included, 19;) York, 23 (if the population of Toronto be included, 13;) Grey, 20; Northumberland, 17; Wentworth, 17 (if the population of Hamilton be included, 11); Norfolk, 16; Carlton, 15, (if the population of Ottawa be included, 10;) Haldimand, Peterborough, each 15; Lambton, 14; Dundas, Leeds, each 13; Frontenac, 12 (if the population of Kingston be included, 8); Elgin, Lennox and Addington, Lanark, each 12; Grenville, 11; Prince Edward, Renfrew, Stormont, each 10; Kent, 9; Hastings, Welland, each 8; Glengary, Lincoln, each 7; Essex, Russell, each 6; and Prescott, only 4 bushels per head of its population."

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#### COMPOSITION OF MILK AT DIFFERENT TIMES OF DAY.

The Edinburgh *Medical Journal* says that Prof. BOEDECKER has analyzed the milk of a healthy cow, at various times of the day, with the view of determining the changes in the relative amount of its constituents. He found that the solids of the evening's milk (13 per cent) exceeded those of the morning's milk, (10 per cent,) while the water contained in the fluid was diminished from 89 per cent to 86 per cent. The fatty matters gradually increase as the day progresses. In the morning they amount to 2.17 per cent, at noon 2.63 per cent, and in the evening 5.42 per cent. This fact is important in a practical point of view—for while 16 ounces of morning's milk will yield nearly half an ounce of butter, about double this quantity can be obtained from the evening's milk. The casein is also increased in the evening's milk from 2.24 to 2.70 per cent, but the albumen is diminished from 0.44 per cent to 0.31 per cent. Sugar is least abundant at midnight (4.19 per cent) and most plenty at noon (4.72 per cent.

## JOURNAL OF MINING, MANUFACTURES, AND ART.

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1. THE GOLD MINES OF NOVA SCOTIA. 2. THE PREPARATION OF IRON PLATES. 3. PAPER AND CLOTH MADE OF INDIAN CORN HUSKS.

### THE GOLD MINES OF NOVA SCOTIA.

THE *Boston Commercial Advertiser* gives the following extract :

From a letter written by a gentleman at Goldenville, Sherbrook, St. Mary's, N. S., September, 1862, the writer states that he endeavors to give his own observations and experience of the Nova Scotia gold fields, how they have been worked, and how they may be worked to better advantage, with some other information :

"The gold found in Nova Scotia is in the 'ore' (or quartz rock) laying in strata with the whin and slate as they were originally formed, with the other primary rocks, and occupy (or are found along) the whole extent of the southern side of Nova Scotia, from Yarmouth to Canseau, and in many places in the interior. The strata of rock dips nearly perpendicular the strike ; from East and West to E. S. E. and W. S. W. ; there are detached pieces or parts lying in different directions or positions, such as at Country Harbor diggings, where the strike is nearly north and south.

"The principal washings are from fractured portions of the rock and quartz that have decayed or dissolved (forming earth) where they fell at the time of the eruption, that gave them all their present position, when thrown bodily from the interior of the earth, and are (as all 'boulders' or detached pieces of the different rock, such as granite, whin, slate, and quartz are also found here) south of their main body or ledge. The quartz lay in veins through those different rocks in all directions, most of them, particularly the largest, are parallel with its strata, and are from a vertical to horizontal position, many at right angles.

"The principal gold bearing loads or leads are each from one-fourth of an inch to a foot or more in thickness, of an undulated form commonly called 'barrel formation,' and yield from one pennyweight to twelve ounces per ton ; parts of some leads are eight to ten feet thick, as the gold lays in veins or branches through the quartz, and also in 'invisible' particles, it is very uncertain what lead or part of it is gold bearing, and many good leads may be condemned by the return from the crusher or not being fairly tested. Quartz are raised from one shaft yielding five to seven ounces, and an adjoining shaft or at a greater or less depth in the same one that will not pay for crushing.

"The work has, as yet, been carried on by parties inexperienced in quartz mining, in companies of from four to sixteen, with but small capital. Shares in some of these companies have been sold at all prices up to \$600 per share ; one three-fourth acre lot was disposed of for \$8,000, principally for the rich earth washing on the surface. The large number of those claims are prospected by trenching for leads which may be missed, or, if found, do not realise as much as pay for crushing, many

strike the gold—and from the way the mine has been opened, and the difficulty with surface water, they have to abandon them for want of capital. It is now pretty generally allowed that they can only be worked by abundance of capital.

"It is not yet twelve months since gold was discovered in Goldenville (or Northwest Arm) diggings; up to that time, and during last winter, it was inhabited by the moose and other wild animals—it can, therefore, be only partially explored and not yet proved. Those mines cover a surface of about three miles long and three-fourths broad; there is a good road through to the wharf, which is within ten miles of the Atlantic. Vessels drawing twelve feet of water come up the river to the wharf; supplies, provisions, &c., are had at nearly Halifax prices. I have thus given a rough sketch of Goldenville. West of here there is Taugier, Nine Mile River, Renfrew, Laidlaws, Lawrence Town, Gold River, and Lunenburg; east are Wine Harbor, Country Harbor, and Isaacs Harbor, all in much the same position as to gold and the operations; there is no doubt abundance of room for spare capital to be laid out to advantage."

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#### THE PREPARATION OF IRON PLATES.

Mr. MATTISON, an artisan in the Devonport dockyard, England, has invented a mode of preparing iron plates for ships' sides, which it is expected will very much facilitate that difficult work. It is thus described:

The first process, taking the mould for the curve of the plate, is effected by what is termed an "Ordnance box"—that is, a wide piece of iron standing on its edge through which a number of movable bolts are placed. On the points of the bolts being fitted against the side of a ship they are pressed home into the hollows of the curve until the exact shape is obtained. They are then fastened by screws and thus rendered immovable. In connection with taking the mould is another instrument for obtaining the levels and curved edges of the ship's side. It is made of slight polished iron, exceedingly flexible, so that it readily conforms itself to the curve when by movable pieces of iron crossways and lengthways the levels are taken. The instrument on being removed returns immediately to its original flattened shape, the edges only retaining the peculiar form given to it by the ship's side. This instrument is for the levels only, the curve of the ship's side being obtained by the other. The mould being thus taken is transferred to the machine that actually makes the curve, which consists of a kind of iron box filled with what are termed "peppots"—that is, a number of pieces of iron about an inch square and ten inches long. These, by screws in the bottom, can also be lowered or raised, and the mould being placed on the top of these movable pieces of iron, the exact shape of the curve is secured, and the "peppots" are screwed into their proper position. Another framework, containing similar pieces of iron in a converse position, is suspended over the one already described. When the plate to be curved has to be laid on, the lower framework is to be drawn out on a kind of rail; the plate, after being heated, is laid on the top of the "peppots" and drawn into its former position, when by means of a lever, the upper "peppots" are brought

down with such power as to secure the required shape. The model is 20 inches wide, 30 long, and 42 high. The plan is said to possess great advantages over the one now in use for taking the curves by means of wooden moulds, which are usually  $3\frac{1}{2}$  feet wide and  $4\frac{1}{2}$  feet thick and about 15 feet long. These moulds are cumbersome and costly. Mr. MATTISON's plan has been submitted to Rear-Admiral Sir THOMAS PASLEY, superintendent, and other officers of the Devonport and Keyham yards, who are understood to have expressed their approval of the invention. The model is to be sent to Woolwich to be tested.

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#### PAPER AND CLOTH MADE OF INDIAN CORN HUSKS.

The United States Patent Office has received an application from Vienna, Austria, for a patent on "improved methods of manufacturing the products of the maize plant." The inventor, Dr. ALOIS RITTER AUER VON WELS-BACH, is a distinguished scientific man. He forwards samples of fiber, yarn, linen cloth, and paper of five varieties, in its natural color and bleached. The Washington correspondent of the Cincinnati *Gazette* has examined these samples, and writes concerning them as follows:

"The corn husk paper is remarkably good. Some of the qualities forwarded are fine tracing paper, which, though exceedingly thin, has nevertheless a firm, solid body and an excellent surface. From that the qualities range down to the coarsest wrapping papers, which certainly seem much stouter and tougher than corresponding grades of straw wrapping papers, and, it is claimed, can be produced at greatly reduced cost. Some of the sheets are an excellent article of book printing paper; others would almost pass for parchment. The inventor's own account of the various steps toward his discovery, is printed handsomely on a large sheet of the corn husk paper, in a style which it would puzzle our printers, with their best presses and papers, to surpass.

"The corn husk yarn and cloth are not nearly as good in their way as the specimens of paper. The yarn, however, is about equal to some of the old-fashioned tow yarn with which our grandmothers in this country were familiar; and the cloth is a trifle coarser and less firmly woven than the coarsest tow cloth. For many purposes for which coarse linen fabrics are now used, the corn husk cloth, as already manufactured, is well adapted. If the process of manufacture can be so improved, as the inventor claims, as to make finer qualities equally well, the importance of this new process can hardly be overrated. In this country, especially, where the raw material is already produced in the utmost abundance, the discovery of these new qualities will be like the *creation* of a new article of manufacture, that shall cost nothing in the outset, and be capable of supplying some of our most costly wants."

## NAUTICAL INTELLIGENCE.

1. FOREIGN NAVY YARDS. 2. NAVY OF THE UNITED STATES. 3. ENGLAND'S IRON-CASED FLEET.  
4. NOTICE TO MARINERS.

## FOREIGN NAVY YARDS.

IN a former number of the *Merchants' Magazine*, we gave a list of the English and French navies built and building. We find some interesting and fuller statements, as well as later information on the same subject, in a communication to the *Boston Commercial Bulletin*, by DONALD MCKAY, Esq., (the best of authority,) he having made a personal inspection of the foreign navy yards:

## IRON-CASED SHIPS.

The French possess in addition to 10 iron-cased floating batteries, constructed during and shortly after the Crimean war, the following iron-cased vessels afloat:

1. Two floating batteries, *Peiho* and *Saigon*, of 14 guns each, 150 horse-power, destined for harbor and coast defence. Their speed is  $6\frac{1}{2}$  knots per hour, considered to be perfectly sufficient for the purpose. They are coated with  $4\frac{1}{2}$  inch plates.

2. Four iron-cased frigates of the *Gloire* class: *Gloire*, *Normandie*, *Invincible*, and *Couronne*. They are armed with 36 rifled 30-pounders, and have engines of 900 horse-power. Their speed is  $13\frac{1}{2}$  knots per hour, they rather pitch a good deal in heavy weather, but their rolling motions are remarkably easy. These ships are plated from stem to stern, from  $6\frac{1}{2}$  feet below the load line to the upper deck, with plates of  $4\frac{1}{2}$  inches in thickness. The captain directs the movements from an iron-cased tower, placed behind the mainmast. This tower also contains the steering wheel. The officers rooms are all under a large, roomy poop-deck, well ventilated with large windows. This poop is not provided with a casing, and of course will be given up to destruction in case of a fight. Their length is 257 feet; breadth 56 feet; depth 27 feet. With the exception of the *Couronne*, which is built of iron, these ships are constructed of timber.

3. Two iron-cased ramships, *Solferino* and *Magenta*, of 52 guns and 1,000 horse-power. Both ships are built of timber. The iron casing up to the main-deck extends from stem to stern, but the two batteries are only cased amidships, covering 13 guns in each battery or each deck. The batteries are continued (outside of an iron-cased bulkhead) to stem and stern, similar to the *Warrior*, and left to destruction in case of a fight. The stem inclines from the load line upwards in a graceful hollow line backwards, and is on the upper part ornamented with an eagle. About three feet below the load line, attached to the stem and forepart of the vessel, is a heavy wrought-iron spar of 16 tons weight for running down other vessels.

The decks of all these before-mentioned vessels are plated under the deck-plank with three-eighths inch iron. The speed of these two ramships is even higher than that of the *Gloire*, viz.:  $13\frac{1}{2}$  knots per hour.

On the stocks the French have the following iron-cased vessels :

1. Two iron-cased floating batteries, *Paixhans* and *Palestro*, (the first of these has been a few days since launched,) of the *Peiho*-class, of 14 guns and 150 horse-power, built like them of timber. They have no rudder, and will be steered by large fins or leeboards, experience having shown that the common rudders are entirely insufficient for steering these ships.

2. Seven smaller iron-cased floating batteries for harbor defence, built of iron. Three of them, the *Arrogante*, *Implacable*, and *Opiniatre*, are building at Nantes in the private establishment of Messrs. *GOUIN & GARBERT*. The four others, *Embuscade*, *Imprenable*, *Protective*, and *Refuge*, are building at Bordeaux in the yard of Mr. *ARMAN*. All these batteries are not destined for sea-service, but merely planned for the protection of the harbors. Of course they also would be of great service in the bombardment of forts.

The seven just named batteries have engines of 150 horse-power, and are armed with eight heavy guns. They are shorter and broader than those of the *Peiho*-class, and have yet less draught of water.

They will be completed for sea by Autumn of next year.

3. Ten iron-cased frigates, on a similar plan as the *Gloire*, but with a little greater length and more height of battery. While the *Gloire* and her sister ships have only six feet height of battery, the new frigates will have their ports  $7\frac{1}{2}$  feet above the water. Nine of these frigates, viz., the *Provence*, *Savoie*, *Revancke*, *Flandre*, *Gauloise*, *Magnanime*, *Valeureuse*, *Surveillante*, and *Guyenne*, are built of timber; only one, the *Heroine*, is building of iron at L'Orient.

If peace should continue it will take about five years to complete these frigates, but if circumstances should dictate, every one of them could be ready for sea by end of next year.

Completed, the English have only the following: *Warrior* and *Black Prince*, of 40 guns and 1,250 horse-power; and the *Defence* and *Resistance*, of 18 guns and 600 horse-power. These four ships are armed with long 68 pounder solid shot guns, and 100 pounder rifled *Armstrong's*. The *Warrior* and *Black Prince* are, undoubtedly, most powerful and fast vessels, far superior to any other iron-cased ships afloat, and the only objection that I see against them is that they are built of iron. Iron for the construction of the bottom of men-of-war ships is a most objectionable material, (notwithstanding all the advantages of strength, lightness, etc., which it may offer,) on account of the inevitable fouling of the bottom and consequent loss of speed. The French have well weighed this question, and, therefore, with only two exceptions, have constructed their whole iron-cased fleet of timber. Iron bottoms do very well for mail-boats that keep almost continually in quick motion, and by the consequent great friction of the water clean their bottom; but the case with men-of-war ships is entirely different, they only go, in exceptional cases with full speed, and have frequently to lay still for several months and even for years. All the preparations for painting the bottoms of iron ships to prevent them from fouling have entirely failed to attain the object for which they were invented, and are now recognised to be only so many humbugs. To show you the bad effects of iron bottoms for men-of-war ships, let me give you some facts.

The trial speed of the *Warrior*, with all her stores on board, was 14.354

knots per hour. Her mean speed at sea, at her first cruise, was  $12\frac{1}{2}$  knots. After having been six months at sea, her trial speed is now  $12\frac{1}{2}$  knots, and her mean speed at sea not more than 10 knots. The ship having lost in this short time fully two knots of her true speed (due to her shape and power) merely on account of fouling of the bottom. The *Black Prince*, her sister ship, in all respects alike to her, her engines built by the same firm, JOHN PENN—only six weeks had elapsed since the vessel left the dry dock, but yet her bottom was so foul, that notwithstanding the most favorable weather and a smooth sea, she only realised a mean trial speed of 12.209 knots, fully 2.145 knots less than the speed of the *Warrior*. The ship was brought now again into the dry dock, got her bottom cleaned, and in her last trial trip she attained a speed of 13.317 knots. Though fully one knot less than the *Warrior*, yet showing that the ship had lost in her previous trial fully 1.008 knots on account of fouling of her bottom in the short time of six weeks.

The trial speed of the *Resistance*, with a clean bottom, all stores on board, has been proved to be 11.356 knots; what it probably will be now after the ship has been laying only eight weeks in the Medway, you may judge from the following official account:

"The *Resistance*, 18 guns screw iron frigate, was placed in dock at Portsmouth on the 9th September instant, and her bottom found to be in an extraordinary state for a ship on the home station, bearing more the appearance of having gone through a long commission on the coast of Africa. The entire bottom of the ship was covered with weeds and long grass of every kind and color, with huge patches and mussels here and there on the port side, together with a good sprinkling of barnacles. On the starboard side, however, the barnacles extended from stem to stern, with an immense quantity of weeds and long grass; the latter in some places, as under the quarter, full *three* feet in length. Large mussels, too, extended fore and aft in clusters, hanging in places as large as conks. From the stem to abreast the forechains on this side, about three feet below the waterline, a belt of mussels adhered to the ship's bow of from two to five inches in thickness, and from one to two feet broad. The whole of the composition which had been laid on to protect the iron on this side appears to have been destroyed, and patches of rust, more particularly under the quarter, have eaten their way through."

The following are the English iron-cased ships now building:

1st. Ships built of iron.

The *Achilles*, building at Chatham, a sister ship to the *Warrior*, with some slight alterations in the shape of her bottom, which is a little fuller in the bilge. In the plating of the ship some new features, indeed great improvements, will be introduced. She will be cased from stem to stern in the vicinity of the load-line; but her battery will be iron-cased only to the same extent as that of the *Warrior*; and, like her, the cased part will be guarded by two strong iron-cased bulkheads running across the main deck. Her power and armament will be like that of the *Warrior*, on which ship she will be a great improvement. Her speed is estimated at 14.10 knots. It will take fully two years to finish her, because the government finds the greatest difficulty in procuring iron which will stand the test of strength applied to it. Hundreds of tons of angle-iron and



plate-iron have been condemned there already on this account. Another great reason against the adoption of iron ships. The government test for iron is 22 tons with the grain, and 19 tons across the grain. In the private yards where no control of that kind is exercised, of course good and bad plates are worked in, and we see in that one of the reasons why so many ships break up in such a fearful manner whenever they strike the bottom.

The Hector and Valiant, of 32 guns, 4,063 tons and 800 horse-power, are building. The first, at Glasgow; the second, at Newcastle. Their estimated speed is 11.75 knots. Nothing has been decided yet how these ships are to be plated.

The Egincourt, Minotaur, and Northumberland, of 50 guns, 6,621 tons and 1,350 horse-power, are building respectively at Birkenhead, Blackwall, and Millwall. They will be cased from stem to stern with  $5\frac{1}{2}$  inch iron plates on a wooden backing of 10 inches, at least that was the original plan; if it will be carried out thus is yet doubtful, for the latest experiments have already proved that  $4\frac{1}{2}$  inch iron on 22 inch timber backing (like the Warrior) offer much better security against the effects of shot, than  $5\frac{1}{2}$  inch iron backed by 10 inches of timber.

The armament of these ships will consist all in 68-pounder solid shot-guns, and 100 and 110-pounder Armstrong guns. Their trial speed has been estimated and calculated at 14.30 knots, and without any doubt they are, or will be, most formidable vessels.

The Prince Albert, of 12 guns, 2,529 tons and 500 horse-power, is building at Millwall. She is to be provided with six cupolas or turrets on Captain Coles' plan. She is to be plated with  $5\frac{1}{2}$  inch iron, but even that has not been decided yet. The opinion of all practical men is decidedly against these shieldships.

I come now to the wooden iron-cased ships in progress of construction, of which so far four classes have been adopted.

The first and by far the most formidable class are the frigates of 34 guns, converted from the 91 screw line-of-battle ships, laid down in 1859. These ships were cut down two decks, lengthened amidships, the shape of the stem altered to make the ships fit for acting as rams, and the stern altered to a somewhat similar shape as the Gloire, yet presenting a much lighter and handsomer appearance than that ship. The ships thus converted are the Ocean and Prince Consort, each of 1,000 horse-power and 34 guns; and the Caledonia, Royal Oak, and Royal Alfred, each of 800 horse-power and 34 guns.

The speed expected to be realized by the two first ships is 12.40 knots per hour; the speed of the three latter ships is estimated at 11.50 knots per hour.

The Prince Consort and the Royal Oak have been lately launched. They are partly plated and will be ready for service in the course of this year. The dimensions of these ships are: length between the perpendiculars, 273 feet; breadth, extreme, 58 feet five inches; breadth, moulded, 56 feet 4 inches; depth of hold, 19 feet 10 inches; burthen in tons, 4,045 26-94. The ships are built in the most substantial manner and of the best materials. Their frames have at the height of the load line a thickness of about 14 inches, their wales are 8 inches thick, and the ceiling 6 to 8 inches. All the wales are coaged to the timbers. The iron plates with which the ships are cased from five feet below the load line

to the upper deck are  $4\frac{1}{2}$  inches in thickness, tapering to 3 inches at the stem and stern. The upper deck beams are of iron, and the deck is iron plated with  $\frac{1}{4}$  inch to  $\frac{1}{2}$  inch plates under the deck plank. A great many ingenious and highly practical details are introduced in the fastening and working of the armor plates (impossible to describe without detailed sketches) that will render the iron armor of these ships more effectual than that of any other class of ships constructed either in England, France, or America. The interior arrangements and fittings are admirably planned, the ventilation perfect throughout, the arrangements for freeing the ships of water are of the most complete kind; and on the whole, this class of ships give the highest credit to its designers and to those officers who were charged with the execution of the plans. I have not the slightest doubt that this class of ships will prove to be the most effectual and useful in future naval warfare, and that we ought to have in the United States ready at least a dozen of similar frigates, with modifications in their shape and dimensions to adapt them to our requirements. Several of the other 91 gunships, yet on the stocks, will be converted into iron cased frigates on precisely the same plan. The armament of these ships will consist in 68 pounder solid shot guns, and in Armstrong 100 and 150-pounder rifled guns, 34 in all. Their masts are all of iron and of immense strength.

The Royal Sovereign, formerly a screw line-of-battle ship of 131 guns, is at present being transformed into a shield-ship, on Captain COLES plan. Her dimensions before the conversion were: length between perpendiculars, 240 feet 6 inches; breadth, extreme, 60 feet. The length remains unaltered, but her breadth will be increased by 2 feet 1 inch, making her tonnage 3,765 tons. The ship has been cut down to her main deck, which has been raised 18 inches at the side and 26 inches in the middle, to form a kind of glacis, allowing the guns in the turrets to be considerably depressed. The ship will carry four turrets, each one of which will contain two 150 or even 300-pounder Armstrong guns. The stern of the ship has been very much altered, and the counter lowered about 10 feet, so that the rudder-post may enter the ship below the load line, and the rudder head be entirely protected.

The top sides of the vessel have been strengthened with two thicknesses of diagonal plank, of respectively 3 and 4 inches, crossing each other at an angle of 45 degrees, and the armor plates of  $5\frac{1}{2}$  inches in thickness will be applied on these. The ship will have no masts and sails, and only will be moved by steam. Her engines have a power of 800 horses, and her actual speed is 12-25 knots per hour. Though the vessel will carry a powerful armament, it is conceded by all parties that vessels of her kind, like all the rest of the Monitor family, are only good for harbor defences, but not fit for fighting at sea.

There are two other classes of ships building, on plans of Mr. REED, naval architect, who got a temporary appointment in the navy. The characteristics of these ships are that they are only plated a little above and below the load-line and the midship part of the vessel containing the guns. The object of the design is to relieve the ends of his vessel of weight, and so far his plans agree with those I proposed to our Navy Department eighteen months ago—but *in vain*. Here the plan has found great favor with the admiralty, and a great number of 36 gun frigates are to be transformed into iron-cased sloops on this plan.

A small vessel on this plan—the *Enterprise*—is building at Deptford dockyard. She has a length of 180 feet, breadth of 36 feet, and a draught of water of 15 feet. Her engines will be of 160 horse-power, and her speed is estimated at 9.50 knots. She will carry an armament of 4 Armstrong 100-pounders.

The larger class, of which the *Favorite*, converting in Deptford, is a sample, has 400 horse-power and a speed of about 11 knots. The *Enterprise* will be finished this year; the *Favorite* in the course of the next.

The experiments with regard to the resistance of iron armor plates against shot and shell are continued at Sheeburyness and Portsmouth, and the following are the results of experience gained thereby. Of all the systems proposed for armor plating ships that adopted for the *Warrior* (and in France for the *Gloire*) have given decidedly the best results, and it has been proved, with no chance of contradiction, that a strong wooden backing is absolutely necessary to make the armor plates resist the impact of shot, and that all attempts to reduce the wood-backing in thickness and increase the thickness of the armor plates by a quantity equal in weight to the withdrawn wood-backing have entirely failed.

The target representing a portion of the sides of the *Warrior* has successfully and entirely withstood the battering of 68-pounder cast and wrought iron shot, as well as the 100, 110 and 150-pounder wrought and cast iron shot thrown from the Armstrong rifled guns, and it only was at last penetrated by shot from the 300-pounder Armstrong gun. The *Warrior* target is plated with  $4\frac{1}{2}$  inch iron plates and 18 inches of wood-backing.

The target representing the side of the *Minotaur* being plated with  $5\frac{1}{2}$  inch iron, on a wood-backing of 9 inches, was penetrated by the 150 pound Armstrong shot, and badly shattered by the 68 pound solid shot.

Three other targets have been erected after plans furnished by Mr. FAIRBAIRN, SAMUDA, and SCOTT RUSSELL, where armor plates of increased thickness were applied directly on the iron skin of the vessel, but they entirely broke down, and were in a short while totally destroyed by the fire of the 68-pounder smooth bore gun. Thus showing that it is absolutely necessary to back the iron casing with a great thickness of wood.

The entire thickness of iron (armor plates and skin of the vessel) to be penetrated was, in the case of FAIRBAIRN's target,  $6\frac{1}{2}$  inches; SAMUDA's, 7 inches; SCOTT RUSSELL's  $8\frac{1}{2}$  inches. The rivets fastening the armor plates to the skin of the vessel were in the two former targets entirely jarred to pieces, so that the armor plates might have dropped off the sides. In SCOTT RUSSELL's target the armor plates had no fastenings in them, but they were united to the skin of the vessel by wedge-shaped angle irons, and the plates hung vertical instead of horizontal. This way of fastening seemed to be well devised, but it did not prevent the plates from being penetrated by the 150-pounder shot, which made a clean hole through the target.

Targets made on a similar principle as the *Monitor* casing, composed of a great number of successive layers of thin plates of iron riveted together, have been penetrated with the greatest facility by 68-pounder solid shot. It was even proved by the experiments that eight single thicknesses of one-inch plates riveted together will not offer more resistance to shot than a single well hammered, solid three-inch plate.

A further experience gained is that plates hammered of well selected

iron offer more resistance to shot than rolled plates of the same thickness.

We thus see, as a conclusion to the above, that the French can have by the end of next year a fleet of sixteen iron-cased frigates fit for foreign service, and the English can muster in a year and-a-half sixteen iron-cased frigates and two iron-cased corvettes, all fit for foreign service and for an aggressive warfare.

### NAVY OF THE UNITED STATES.

The *Navy Register* for 1862 is out. It is dated up to 1st September, but having been at press some time it is slightly inaccurate. Annexed is a brief analysis of it:

| Officers.                             | 1862.   |          | 1861.   |          |
|---------------------------------------|---------|----------|---------|----------|
|                                       | Active. | Retired. | Active. | Retired. |
| Rear Admirals.....                    | 4       | 4        | ...     | ...      |
| Commodores.....                       | 18      | 17       | ...     | ...      |
| Captains.....                         | 40      | 32       | 78      | 15       |
| Commanders.....                       | 91      | 19       | 114     | 13       |
| Lieutenant Commanders.....            | 114     | ..       | ...     | ...      |
| Lieutenants.....                      | 90      | 22       | 321     | 30       |
| Surgeons.....                         | 80      | 26       | 69      | ...      |
| Assistant Surgeons.....               | 118     | ..       | 36      | ...      |
| Passed ".....                         | 2       | ..       | 43      | ...      |
| Paymasters.....                       | 62      | 9        | 64      | ...      |
| Assistant Paymasters.....             | 31      | ..       | ...     | ...      |
| Chaplains.....                        | 16      | 7        | 34      | ...      |
| Professors of Mathematics.....        | 12      | ..       | 12      | ...      |
| Masters in line of promotion.....     | ..      | 1        | 36      | ...      |
| Masters not in line of promotion..... | ..      | 6        | ...     | 9        |
| Passed Midshipmen.....                | ..      | 2        | ...     | 2        |
| Midshipmen.....                       | 328     | ..       | 299     | ...      |
| Boatswains.....                       | 54      | ..       | 43      | ...      |
| Gunners.....                          | 93      | ..       | 47      | ...      |
| Carpenters.....                       | 60      | ..       | 45      | ...      |
| Sailmakers.....                       | 46      | ..       | 40      | ...      |
| Acting Lieutenants.....               | 15      | ..       | ...     | ...      |
| " Volunteer Lieutenants.....          | 29      | ..       | ...     | ...      |
| " Masters.....                        | 586     | ..       | ...     | ...      |
| " Ensigns.....                        | 60      | ..       | ...     | ...      |
| " Master's Mates.....                 | 511     | ..       | ...     | ...      |
| " Assistant Surgeons.....             | 94      | ..       | ...     | ...      |
| " " Paymasters and Clerks.....        | 141     | ..       | ...     | ...      |
| " Engineers.....                      | 370     | ..       | ...     | ...      |
| Total.....                            | 3,095   | 151      | 2,081   | 70       |
| Increase in 1862.....                 | 1,095   |          |         |          |

There were no admirals or commodores, properly so called in 1861, but captains in command of squadrons were named flag officers.

The vessels built and building up to September 1st, are as follows:

|                      | Guns. | Tonnage. |                      | Guns. | Tonnage. |
|----------------------|-------|----------|----------------------|-------|----------|
| 13 iron-clad gunb'ts | 125   | 11,701   | 25 screw sloops...   | 282   | 33,722   |
| 40 " building        | 136   | 51,478   | 18 sloops.....       | 230   | 13,508   |
| 103 side-wheel stmrs | 559   | 72,611   | 24 barks.....        | 103   | 9,637    |
| 80 screw steamers .  | 340   | 41,793   | 20 m'r'tar schooners | 56    | 4,685    |
| 6 ships of the line  | 504   | 16,199   | 12 rams and gunb'ts  | 25    | 8,000    |
| 4 steam frigates..   | 180   | 13,266   | 4 brigs.....         | 20    | 999      |
| 6 frigates.....      | 292   | 13,846   | 8 schooners.....     | 12    | 1,154    |
| 21 ships.....        | 228   | 17,784   |                      |       |          |

### ENGLAND'S IRON-CASED FLEET.

We find in the *European Times* the following list of all England's iron-cased ships and floating batteries, building or afloat:

| IRON BUILT.— <i>Building.</i> |              |                 | WOOD BUILT.— <i>Building.</i> |              |                 |
|-------------------------------|--------------|-----------------|-------------------------------|--------------|-----------------|
|                               | Horse power. | Speed in knots. |                               | Horse power. | Speed in knots. |
| Achilles.....                 | 1,250        | 14.1            | Caledonia.....                | 1,000        | 12.4            |
| Agincourt.....                | 1,350        | 14.3            | Ocean.....                    | 1,000        | 12.4            |
| Minotaur.....                 | 1,350        | 14.3            | Royal Alfred...               | 800          | 11.5            |
| Northumberland                | 1,350        | 14.3            | Royal Oak.....                | 800          | 11.5            |
| Hector.....                   | 800          | 11.75           | Favourite.....                | 400          | 10.87           |
| Valiant.....                  | 800          | 11.75           | Enterprise.....               | 160          | 9.50            |
| Prince Albert..               | 500          | 11.4            |                               |              |                 |
| AFLOAT.                       |              |                 | CONVERTING.                   |              |                 |
| Black Prince...               | 1,250        | 14.3            | Royal Sovereign               | 800          | 12.25           |
| Warrior.....                  | 1,250        | 14.354          | AFLOAT.                       |              |                 |
| Defence.....                  | 600          | 11.356          | Prince Consort.               | 1,000        | 12.4            |
| Resistance.....               | 600          | 12.231          | FLOATING BATTERIES.           |              |                 |
| FLOATING BATTERIES.           |              |                 | Etna.....                     | 200          | about 6.0       |
| Erebus.....                   | 200          | about 5.5       | Glatten.....                  | 150          | about 5.5       |
| Terror.....                   | 200          | "               | Thunder.....                  | 150          | "               |
| Thunderbolt...                | 200          | "               | Trusty.....                   | 150          | "               |

Of the iron-built vessels, the Prince Albert and the three floating batteries are, or are to be, wholly cased with armor plating, the rest partially; of the wood-built, the Favourite and Enterprise are to be partially cased, the rest wholly. Only the Prince Albert and the Royal Sovereign are to be fitted with COLES' cupolas; the rest with masts.

### NOTICE TO MARINERS.

CURRENTS NEAR ABACO, BAHAMA BANKS, }  
BUREAU OF NAVIGATION, October 4th, 1862. }

The following information has been communicated to the Bureau by Acting Lieut. JAMES PARKER, U. S. N., who states that the writer is an

intelligent person, and that his experience subsequent to the wreck of the U. S. steamer Adirondack fully confirms the statements. It is made public for the benefit of navigators.

J. M. GILLISS, *Act. Com. of the Bureau.*

(Copy)

"ISLAND ABACO, Lat. 26° 31' N. Lon. 76° 51' W.

"The current among our islands are little understood, and are often erroneously stated by writers. This I know from thirteen years' strict investigation and experience. Here, with the waning moon, the current invariably sets from the southward toward the west, taking the curve of the Elbow Reef (as it is called) at the rate of three knots per hour in summer, and sometimes as much as five in winter, being subject to the variations caused by the wind and the ebb and flow of the tide, which sets in strong among the Cays surrounding the main Island of Abaco.

"Two or three days after the change of the moon the current changes in the opposite direction, inclining a little more to the east with a much less velocity, say from 1 to 2½ knots per hour, subject, as before stated, to the ebb and flow of the tide, &c. There is a large sheet of navigable water between the main island and the Cays, hence the strong set of the tide at various openings in the reef. This tide has considerable effect on vessels nearing them, as the number of wrecks in the immediate vicinity attest. Opposite the Man O'War Key, (where the ship went ashore,) the land is very low and the reef stretches out farthest to the north, with a wide opening, where no land can be seen except in a very clear night. This same place has been counted one of the best wrecking grounds in the Bahamas.

#### SHIPPING INTEREST OF GREAT BRITAIN.

The annexed table shows the proportions of British and foreign tonnage entered and cleared at ports of the United Kingdom during the last eighteen years :

| Years.            | British. | Foreign. | Years.            | British. | Foreign. |
|-------------------|----------|----------|-------------------|----------|----------|
| 1844.....per cent | 71.9     | 28.1     | 1853.....per cent | 58.9     | 41.1     |
| 1845.....         | 70.9     | 29.1     | 1854.....         | 60.1     | 39.9     |
| 1846.....         | 70.7     | 29.3     | 1855.....         | 59.9     | 40.1     |
| 1847.....         | 68.8     | 31.2     | 1856.....         | 61.8     | 38.7     |
| 1848.....         | 71.2     | 28.8     | 1857.....         | 60.9     | 39.1     |
| 1849.....         | 70.9     | 29.1     | 1858.....         | 59.8     | 40.2     |
| 1850.....         | 68.8     | 31.2     | 1859.....         | 60.1     | 39.9     |
| 1851.....         | 68.8     | 31.2     | 1860.....         | 56.4     | 43.6     |
| 1852.....         | 64.1     | 35.9     | 1861.....         | 58.0     | 42.0     |

## JOURNAL OF BANKING, CURRENCY, AND FINANCE.

1. CITY WEEKLY BANK RETURNS—NEW YORK BANKS, PHILADELPHIA BANKS, BOSTON BANKS, PROVIDENCE BANKS. 2. WEEKLY STATEMENT BANK OF ENGLAND. 3. BANK OF FRANCE. 4. FRENCH BUDGET OF 1863. 5. BANKS OF WISCONSIN. 6. FINANCES OF VERMONT. 7. BANKS OF ILLINOIS. 8. DEBT OF MEXICO. 9. TAXATION OF GOVERNMENT SECURITIES. 10. THE BALANCE OF TRADE. 11. BANK OF ENGLAND—ACCESS TO THEIR BULLION ROOM.

## CITY WEEKLY BANK RETURNS.

NEW YORK BANKS. (*Capital, Jan., 1862, \$69,493,577; Jan., 1861, \$69,890,475.*)

| Date.            | Loans.        | Specie.      | Circulation. | Net Deposits. | Weekly Clearings. |
|------------------|---------------|--------------|--------------|---------------|-------------------|
| January 4,.....  | \$154,415,826 | \$23,983,878 | \$8,586,186  | \$111,789,238 | \$100,642,429     |
| " 11,.....       | 152,088,012   | 25,373,070   | 8,121,512    | 113,889,762   | 105,684,811       |
| " 18,.....       | 149,081,438   | 26,120,859   | 7,869,028    | 113,327,160   | 107,732,780       |
| " 25,.....       | 145,767,680   | 26,698,728   | 6,828,017    | 110,874,786   | 100,001,959       |
| February 1,..... | 144,675,778   | 27,479,583   | 6,404,951    | 112,067,003   | 93,791,629        |
| " 8,.....        | 143,803,890   | 28,196,666   | 6,077,417    | 110,637,557   | 113,216,297       |
| " 15,.....       | 141,994,192   | 28,114,148   | 5,762,506    | 110,430,475   | 105,102,177       |
| " 22,.....       | 139,950,958   | 28,875,992   | 5,489,496    | 109,079,076   | 111,846,066       |
| March 1,.....    | 137,674,238   | 29,826,959   | 5,363,944    | 107,974,499   | 109,854,823       |
| " 8,.....        | 133,055,148   | 30,436,644   | 5,869,206    | 103,715,728   | 113,512,576       |
| " 15,.....       | 130,822,776   | 30,773,050   | 5,904,866    | 100,296,704   | 113,957,978       |
| " 22,.....       | 127,615,306   | 32,023,890   | 6,260,809    | 97,601,279    | 115,376,331       |
| " 29,.....       | 125,021,630   | 32,841,302   | 6,758,313    | 94,428,071    | 106,978,432       |
| April 5,.....    | 124,477,484   | 33,764,382   | 7,699,641    | 94,082,625    | 111,336,384       |
| " 12,.....       | 123,412,491   | 34,594,668   | 8,004,843    | 93,759,063    | 114,738,013       |
| " 19,.....       | 123,070,363   | 34,671,528   | 8,664,663    | 95,179,340    | 113,629,377       |
| " 26,.....       | 125,086,825   | 35,297,944   | 8,118,571    | 101,897,435   | 124,396,733       |
| May 3,.....      | 133,406,418   | 35,175,828   | 8,482,732    | 109,634,535   | 140,952,471       |
| " 10,.....       | 133,948,211   | 32,239,868   | 8,330,321    | 115,559,206   | 181,113,537       |
| " 17,.....       | 142,290,782   | 30,260,697   | 8,727,323    | 120,003,929   | 167,893,055       |
| " 24,.....       | 142,960,149   | 30,672,760   | 8,592,676    | 122,602,864   | 142,328,565       |
| " 31,.....       | 142,671,414   | 31,397,284   | 8,535,149    | 125,434,755   | 136,893,373       |
| June 7,.....     | 142,318,881   | 31,248,882   | 8,313,603    | 125,566,961   | 143,123,103       |
| " 14,.....       | 144,014,350   | 31,162,045   | 8,314,322    | 125,643,375   | 165,521,454       |
| " 21,.....       | 146,839,762   | 31,047,945   | 8,849,183    | 126,684,422   | 168,059,995       |
| " 28,.....       | 148,345,422   | 30,822,626   | 8,910,344    | 127,860,708   | 154,890,447       |
| July 5,.....     | 148,643,718   | 31,790,519   | 9,270,815    | 127,496,534   | 149,743,923       |
| " 12,.....       | 147,997,486   | 32,098,174   | 9,212,397    | 127,538,055   | 167,789,726       |
| " 19,.....       | 148,827,423   | 31,926,609   | 9,155,301    | 129,485,977   | 161,066,594       |
| " 26,.....       | 149,768,293   | 33,064,575   | 9,244,963    | 132,427,178   | 162,650,811       |
| August 2,.....   | 150,517,344   | 34,022,490   | 9,311,868    | 137,112,937   | 149,167,633       |
| " 9,.....        | 151,190,203   | 34,611,069   | 9,221,504    | 139,544,680   | 139,926,277       |
| " 16,.....       | 152,323,731   | 35,301,778   | 9,237,206    | 142,084,051   | 139,796,908       |
| " 23,.....       | 154,855,704   | 35,688,486   | 9,356,635    | 143,347,341   | 147,659,087       |
| " 30,.....       | 158,278,552   | 35,640,932   | 9,454,306    | 141,971,741   | 150,875,167       |
| Sept. 6,.....    | 158,435,859   | 36,138,923   | 9,645,965    | 142,663,036   | 154,074,830       |
| " 13,.....       | 157,828,513   | 37,125,245   | 9,719,126    | 144,991,062   | 155,813,245       |
| " 20,.....       | 158,299,288   | 37,863,037   | 9,789,060    | 143,680,453   | 179,681,651       |
| " 27,.....       | 160,161,046   | 37,592,551   | 9,800,723    | 153,291,851   | 196,879,038       |
| Oct. 4,.....     | 165,057,113   | 38,325,587   | 9,900,112    | 167,944,771   | 239,013,452       |
| " 11,.....       | 169,673,009   | 39,263,036   | 9,880,550    | 162,963,264   | 243,033,030       |
| " 18,.....       | 172,512,085   | 38,759,256   | 9,907,529    | 164,337,458   | 255,444,122       |
| " 25,.....       | 174,879,346   | 37,453,531   | 9,878,240    | 164,497,972   | 245,940,203       |

## PHILADELPHIA BANKS. (Capital, Jan., 1862, \$11,970,180.)

| Date.       | Loans.       | Specie.     | Circulation. | Deposits.    | Due to banks. | Due from banks. |
|-------------|--------------|-------------|--------------|--------------|---------------|-----------------|
| Jan. 6....  | \$81,046,587 | \$5,688,728 | \$2,145,219  | \$21,896,014 | \$3,645,956   | \$1,796,805     |
| " 13....    | 31,145,938   | 5,692,123   | 2,162,152    | 21,824,510   | 3,992,962     | 1,702,716       |
| " 20....    | 30,601,160   | 5,733,450   | 2,120,756    | 20,698,496   | 4,120,261     | 1,576,116       |
| " 27....    | 30,885,606   | 5,821,323   | 2,121,146    | 20,058,098   | 4,209,006     | 1,858,688       |
| Feb. 3....  | 30,885,319   | 5,884,011   | 2,144,398    | 20,068,890   | 4,572,872     | 1,707,186       |
| " 10....    | 29,974,700   | 5,923,874   | 2,191,547    | 19,082,535   | 4,890,288     | 1,587,481       |
| " 17....    | 29,388,544   | 5,849,854   | 2,191,512    | 18,692,182   | 4,661,442     | 2,052,021       |
| " 24....    | 29,280,049   | 5,867,686   | 2,280,605    | 18,777,300   | 5,205,208     | 1,935,414       |
| Mar. 3....  | 29,893,356   | 5,881,108   | 2,343,493    | 18,541,190   | 5,218,383     | 1,823,383       |
| " 10....    | 28,083,499   | 5,864,730   | 2,575,502    | 17,375,771   | 5,131,334     | 1,733,169       |
| " 17....    | 28,728,835   | 5,897,891   | 2,632,627    | 17,253,461   | 5,342,376     | 1,649,137       |
| " 24....    | 28,350,615   | 5,915,535   | 2,707,804    | 17,066,267   | 5,210,365     | 1,774,162       |
| " 31....    | 27,831,333   | 5,884,314   | 2,904,542    | 17,024,198   | 5,100,186     | 2,134,393       |
| April 7.... | 28,037,691   | 5,886,424   | 3,378,970    | 16,636,538   | 5,607,488     | 2,231,869       |
| " 14....    | 28,076,717   | 5,912,870   | 3,496,420    | 18,112,446   | 4,668,842     | 2,364,171       |
| " 21....    | 28,246,733   | 6,046,260   | 3,525,400    | 19,011,833   | 4,543,327     | 2,504,147       |
| " 28....    | 28,798,116   | 6,052,827   | 3,613,994    | 20,223,566   | 4,470,674     | 3,128,069       |
| May 5....   | 29,524,432   | 6,049,685   | 3,759,692    | 21,316,614   | 4,581,387     | 3,822,659       |
| " 12....    | 29,966,347   | 5,728,028   | 3,867,200    | 23,002,263   | 5,113,541     | 4,981,391       |
| " 19....    | 31,121,563   | 5,529,221   | 4,045,696    | 23,385,009   | 5,597,984     | 4,304,956       |
| " 26....    | 31,533,603   | 5,587,012   | 4,186,055    | 23,973,478   | 5,472,615     | 5,120,902       |
| June 2....  | 31,747,070   | 5,583,482   | 4,335,013    | 24,384,644   | 5,373,322     | 5,372,743       |
| " 9....     | 31,951,715   | 5,632,307   | 4,354,599    | 24,973,011   | 5,161,280     | 5,355,034       |
| " 16....    | 32,132,654   | 5,630,503   | 4,293,023    | 24,307,067   | 5,036,828     | 5,396,323       |
| " 23....    | 32,554,656   | 5,609,926   | 4,324,735    | 24,143,814   | 5,144,628     | 4,800,094       |
| " 30....    | 32,911,578   | 5,573,999   | 4,430,057    | 24,410,423   | 5,583,644     | 5,233,273       |
| July 7....  | 33,206,661   | 5,545,007   | 4,749,220    | 24,307,782   | 5,733,574     | 5,422,124       |
| " 14....    | 33,118,502   | 5,579,945   | 4,859,921    | 24,183,604   | 5,936,594     | 5,415,203       |
| " 21....    | 33,086,308   | 5,613,724   | 5,005,533    | 24,435,817   | 5,794,325     | 5,219,445       |
| " 28....    | 33,333,373   | 5,579,788   | 5,055,276    | 24,764,231   | 5,918,294     | 5,308,984       |
| Aug. 4....  | 33,517,900   | 5,660,187   | 5,026,070    | 24,658,289   | 5,934,242     | 5,406,075       |
| " 11....    | 33,543,373   | 5,652,730   | 4,999,935    | 24,217,855   | 6,339,018     | 5,204,511       |
| " 18....    | 33,506,039   | 5,552,605   | 5,006,351    | 24,147,814   | 6,400,330     | 5,316,223       |
| " 25....    | 33,731,575   | 5,483,051   | 5,002,418    | 23,737,662   | 6,333,786     | 5,443,155       |
| Sept. 1.... | 33,899,351   | 5,543,160   | 5,071,855    | 24,597,596   | 6,518,107     | 5,322,089       |
| " 8....     | 34,631,350   | 5,546,157   | 5,192,935    | 25,062,171   | 6,632,905     | 5,139,978       |
| " 15....    | 35,015,676   | 5,515,044   | 5,177,587    | 24,780,163   | 7,420,242     | 5,104,687       |
| " 22....    | 34,871,535   | 5,449,027   | 5,174,550    | 24,194,214   | 7,702,439     | 5,212,073       |
| " 29....    | 34,589,387   | 5,440,140   | 5,111,474    | 24,997,926   | 7,255,049     | 6,035,429       |
| Oct. 6....  | 34,826,063   | 5,453,743   | 5,095,704    | 25,419,340   | 7,119,340     | 5,714,780       |
| " 13....    | 35,298,494   | 5,508,970   | 5,091,061    | 25,735,561   | 7,171,391     | 2,396,301       |
| " 20....    | 35,526,851   | 5,467,907   | 5,050,614    | 25,392,970   | 7,244,194     | 2,250,332       |

## BOSTON BANKS. (Capital, Jan., 1862, \$38,231,700; Jan., 1861, \$38,231,700.)

| Date.      | Loans.       | Specie.     | Circulation. | Deposits.    | Due to banks. | Due from banks. |
|------------|--------------|-------------|--------------|--------------|---------------|-----------------|
| Jan. 6.... | \$65,612,997 | \$8,920,486 | \$6,451,587  | \$27,093,839 | \$9,187,924   | \$8,701,873     |
| " 13....   | 64,704,039   | 8,580,607   | 6,612,512    | 25,642,994   | 9,634,227     | 8,805,255       |
| " 20....   | 64,409,535   | 8,585,277   | 6,549,871    | 25,441,327   | 9,547,319     | 9,018,388       |
| " 27....   | 63,025,191   | 8,562,175   | 6,284,268    | 24,080,776   | 9,593,545     | 8,727,343       |
| Feb. 3.... | 62,628,793   | 8,529,483   | 6,260,299    | 23,600,321   | 9,727,783     | 8,766,415       |
| " 10....   | 62,340,600   | 8,514,600   | 6,166,000    | 22,784,700   | 9,892,600     | 8,965,500       |
| " 17....   | 62,587,788   | 8,410,390   | 6,469,309    | 22,034,794   | 9,653,725     | 8,315,887       |
| " 24....   | 62,053,640   | 8,341,588   | 6,580,205    | 21,515,228   | 9,625,869     | 8,644,360       |
| Mar. 3.... | 61,678,500   | 8,364,600   | 6,318,700    | 21,208,500   | 9,681,600     | 8,932,609       |
| " 10....   | 61,334,500   | 8,409,535   | 6,693,139    | 20,740,208   | 9,906,110     | 8,450,721       |
| " 17....   | 61,747,000   | 8,471,000   | 6,864,800    | 20,554,000   | 9,790,000     | 7,981,000       |
| " 24....   | 61,655,420   | 8,441,058   | 6,219,512    | 20,326,087   | 9,716,256     | 7,669,531       |
| " 31....   | 61,360,739   | 8,441,196   | 5,908,272    | 19,975,018   | 9,434,782     | 6,973,527       |
| Apr. 7.... | 61,208,974   | 8,674,170   | 6,557,152    | 21,014,000   | 9,245,088     | 8,133,124       |



| Data.       | Loans.     | Specie.   | Circulation. | Deposits.  | Due to banks. | Due from banks. |
|-------------|------------|-----------|--------------|------------|---------------|-----------------|
| Apr. 14,... | 61,058,969 | 8,688,578 | 6,170,888    | 21,009,010 | 8,949,259     | 7,178,374       |
| " 21,...    | 61,019,787 | 8,679,356 | 5,924,906    | 21,570,017 | 8,529,277     | 6,946,164       |
| " 28,...    | 60,441,452 | 8,666,797 | 5,500,896    | 22,402,134 | 8,493,004     | 7,813,530       |
| May 5,...   | 59,805,545 | 8,598,990 | 5,453,815    | 23,823,199 | 8,655,206     | 9,898,508       |
| " 12,...    | 59,521,251 | 8,422,738 | 5,537,937    | 24,827,121 | 9,197,744     | 11,755,589      |
| " 19,...    | 60,059,635 | 8,304,534 | 5,602,844    | 25,792,916 | 9,614,737     | 13,105,850      |
| " 26,...    | 60,266,275 | 8,108,695 | 5,502,756    | 26,264,656 | 10,029,198    | 13, 95,686      |
| June 2,...  | 60,677,367 | 8,089,723 | 5,848,188    | 26,780,486 | 10,226,491    | 13,924,896      |
| " 9,...     | 62,059,198 | 7,983,425 | 5,696,413    | 26,277,021 | 10,610,702    | 12,838,043      |
| " 16,...    | 62,591,341 | 7,894,899 | 5,875,612    | 26,602,048 | 10,632,170    | 11,884,693      |
| " 23,...    | 63,056,262 | 7,850,634 | 6,159,115    | 26,994,738 | 10,644,000    | 12,122,000      |
| " 30,...    | 63,638,999 | 7,8014,87 | 6,131,019    | 26,237,754 | 10,678,205    | 12,265,781      |
| July 7,...  | 64,590,268 | 7,934,037 | 6,943,827    | 26,868,862 | 11,686,142    | 13,869,180      |
| " 14,...    | 65,635,000 | 7,978,000 | 7,091,000    | 26,685,000 | 12,675,700    | 13,624,000      |
| " 21,...    | 65,989,168 | 7,980,780 | 6,840,474    | 26,896,242 | 13,436,486    | 14,060,762      |
| " 28,...    | 66,168,806 | 7,968,696 | 6,618,160    | 26,698,325 | 13,582,589    | 13,921,239      |
| Aug. 4,...  | 66,836,729 | 7,966,702 | 6,633,822    | 27,315,402 | 14,013,524    | 13,473,620      |
| " 11,...    | 67,508,527 | 7,967,761 | 6,768,178    | 26,816,409 | 14,409,859    | 12,879,978      |
| " 18,...    | 68,384,938 | 7,975,427 | 6,778,260    | 26,572,677 | 14,634,778    | 12,566,187      |
| " 25,...    | 68,843,323 | 8,055,402 | 6,772,215    | 26,791,827 | 15,690,425    | 13,231,313      |
| Sept. 1,... | 69,130,636 | 8,043,888 | 6,815,923    | 26,646,647 | 15,951,097    | 13,105,871      |
| " 8,...     | 69,788,376 | 8,066,695 | 7,065,156    | 26,942,637 | 15,982,000    | 13,106,000      |
| " 15,...    | 69,958,000 | 7,968,000 | 7,153,000    | 26,140,600 | 17,682,000    | 13,902,000      |
| " 22,...    | 70,332,897 | 7,968,546 | 7,239,383    | 25,970,904 | 17,594,158    | 13,585,410      |
| " 29,...    | 70,081,686 | 7,970,832 | 7,243,967    | 26,397,325 | 17,333,395    | 13,921,286      |
| Oct. 6,...  | 71,043,500 | 7,991,580 | 7,616,044    | 26,166,155 | 17,806,000    | 14,961,700      |
| " 13,...    | 71,226,581 | 7,977,116 | 7,949,524    | 26,673,721 | 17,036,000    | 14,960,700      |
| " 20,...    | 72,558,000 | 7,842,700 | 7,832,000    | 29,316,000 | 17,668,700    | 14,555,000      |

## PROVIDENCE BANKS. (Capital, Jan., 1862, \$15,454,600.)

| Data.         | Loans.       | Specie.   | Circulation. | Deposits.   | Due to banks. | Due from banks. |
|---------------|--------------|-----------|--------------|-------------|---------------|-----------------|
| Jan. 11, .... | \$19,356,800 | \$408,700 | \$1,889,600  | \$3,054,600 | \$1,099,800   | \$915,400       |
| " 18, ....    | 19,238,700   | 402,900   | 1,890,300    | 2,899,200   | 1,071,500     | 898,500         |
| " 25, ....    | 19,160,600   | 394,700   | 1,756,500    | 2,899,600   | 959,400       | 1,057,400       |
| Feb. 1, ....  | 19,160,600   | 394,700   | 1,811,100    | 2,950,500   | 871,800       | 925,500         |
| " 8, ....     | 19,087,700   | 395,900   | 1,814,300    | 2,915,200   | 900,400       | 934,700         |
| " 15, ....    | 19,109,400   | 394,800   | 1,784,000    | 2,762,200   | 911,100       | 1,081,000       |
| " 22, ....    | 18,869,800   | 396,800   | 1,879,100    | 2,792,700   | 893,900       | 1,180,000       |
| Mar. 1, ....  | 18,920,500   | 407,500   | 1,791,200    | 2,924,400   | 953,900       | 1,233,000       |
| " 8, ....     | 18,958,900   | 405,100   | 1,978,500    | 3,080,600   | 1,131,500     | 1,598,800       |
| " 15, ....    | 18,998,600   | 408,500   | 1,848,100    | 2,946,800   | 1,103,200     | 1,484,300       |
| " 22, ....    | 19,148,400   | 408,300   | 1,879,200    | 3,060,900   | 1,085,600     | 1,407,700       |
| " 29, ....    | 19,360,600   | 411,300   | 1,857,100    | 3,078,800   | 1,021,000     | 1,165,400       |
| Apr. 5, ....  | 19,641,000   | 417,500   | 2,102,000    | 3,124,000   | 1,115,500     | 1,063,200       |
| " 12, ....    | 19,719,200   | 416,600   | 2,036,800    | 3,017,700   | 1,081,000     | 894,800         |
| " 19, ....    | 19,644,500   | 408,600   | 1,953,400    | 3,015,900   | 1,020,400     | 845,400         |
| " 26, ....    | 19,620,300   | 413,700   | 1,877,200    | 3,123,500   | 943,400       | 961,200         |
| May 3, ....   | 19,538,410   | 417,378   | 1,979,828    | 3,134,601   | 950,430       | 1,156,072       |
| " 10, ....    | 19,070,200   | 410,300   | 1,969,400    | 3,164,700   | 1,132,500     | 1,714,400       |
| June 7, ....  | 19,236,100   | 395,600   | 2,016,600    | 3,342,400   | 1,653,500     | 2,101,900       |
| " 14, ....    | 19,641,600   | 388,500   | 2,182,700    | 3,274,600   | 1,666,500     | 1,818,200       |
| " 21, ....    | 19,827,500   | 385,500   | 2,324,900    | 3,153,600   | 1,627,500     | 1,744,400       |
| " 28, ....    | 20,285,500   | 383,400   | 2,510,500    | 3,283,200   | 1,873,500     | 1,753,700       |
| July 5, ....  | 20,588,800   | 392,100   | 2,888,300    | 3,531,500   | 1,763,900     | 1,858,800       |
| " 12, ....    | 20,416,400   | 388,000   | 2,953,800    | 3,183,100   | 1,744,600     | 1,796,600       |
| " 19, ....    | 20,494,600   | 384,800   | 2,980,200    | 3,347,300   | 1,918,500     | 2,023,400       |
| " 26, ....    | 21,078,400   | 376,400   | 3,143,100    | 4,282,200   | 2,061,800     | 2,150,200       |
| Aug. 16, .... | 21,051,000   | 367,600   | 3,086,700    | 3,780,500   | 1,646,200     | 1,927,500       |
| " 23, ....    | 21,119,500   | 363,300   | 3,102,000    | 3,569,900   | 1,804,600     | 2,090,700       |
| Sept 6, ....  | 21,279,200   | 355,700   | 3,394,200    | 3,704,200   | 1,844,800     | 1,683,300       |
| " 20, ....    | 21,804,200   | 35,690    | 3,484,300    | 3,731,600   | 1,710,800     | 1,642,300       |
| Oct. 11, .... | 22,197,400   | 379,000   | 4,006,600    | 4,066,000   | 1,751,100     | 1,859,900       |

## BANK OF ENGLAND.

## WEEKLY STATEMENT.

The returns of the Bank of England the past month, show a regular decrease in bullion each week :

|                                       |          |          |
|---------------------------------------|----------|----------|
| For the week ending September 10..... | decrease | £213,682 |
| " " " 17.....                         |          | 245,785  |
| " " " 24.....                         |          | 199,011  |
| " " October 8.....                    |          | 400,981  |

Total decrease from September 10 to October 8..... £1,059,559

The other changes are immaterial.

| Data.       | Circulation. | Public Deposits. | Private Deposits. | Securities. | Coin and Bullion. | Rate of Discount. |
|-------------|--------------|------------------|-------------------|-------------|-------------------|-------------------|
| Jan. 1..    | £20,818,190  | £7,345,888       | £15,086,062       | £30,419,780 | £15,961,489       | 3 pr. ct.         |
| " 8....     | 21,086,675   | 4,542,974        | 18,206,488        | 31,022,505  | 16,046,017        | 2½ "              |
| " 15....    | 21,460,925   | 4,582,358        | 16,480,452        | 29,509,864  | 16,291,624        | 2½ "              |
| " 22....    | 21,697,928   | 5,467,840        | 15,866,081        | 29,464,720  | 16,350,989        | 2½ "              |
| " 29....    | 21,183,876   | 5,753,068        | 14,761,486        | 28,696,456  | 16,280,369        | 2½ "              |
| Feb. 5....  | 21,427,554   | 5,788,441        | 14,179,917        | 28,834,852  | 15,956,902        | 2½ "              |
| " 12....    | 21,286,312   | 4,884,989        | 15,526,384        | 29,010,241  | 16,042,949        | 2½ "              |
| " 19....    | 20,772,726   | 5,897,144        | 15,085,843        | 28,771,812  | 15,894,405        | 2½ "              |
| " 26....    | 20,786,715   | 5,762,849        | 14,989,742        | 29,024,962  | 15,749,065        | 2½ "              |
| Mar. 5....  | 21,217,246   | 6,755,287        | 13,787,507        | 29,692,441  | 15,678,898        | 2½ "              |
| " 12....    | 20,018,685   | 7,527,911        | 18,768,718        | 29,489,795  | 16,027,111        | 2½ "              |
| " 19....    | 20,483,509   | 8,011,694        | 13,340,928        | 28,953,089  | 16,548,586        | 2½ "              |
| " 26....    | 20,814,655   | 8,418,275        | 13,154,258        | 29,140,207  | 16,812,798        | 2½ "              |
| April 2.... | 21,501,595   | 8,456,468        | 13,622,532        | 30,398,790  | 16,849,198        | 2½ "              |
| " 9....     | 21,822,105   | 5,625,314        | 16,336,169        | 29,981,798  | 16,881,940        | 2½ "              |
| " 16....    | 22,048,463   | 5,225,182        | 15,710,260        | 29,325,888  | 16,748,434        | 2½ "              |
| " 23....    | 21,655,553   | 5,584,973        | 15,915,247        | 29,022,128  | 17,172,204        | 2½ "              |
| " 30....    | 21,946,997   | 6,867,375        | 14,357,007        | 29,164,075  | 17,089,446        | 2½ "              |
| May 7....   | 21,752,884   | 7,503,991        | 13,866,643        | 29,961,214  | 17,265,745        | 2½ "              |
| " 14....    | 21,618,780   | 6,304,688        | 14,948,808        | 29,076,079  | 16,919,147        | 2½ "              |
| " 21....    | 21,539,430   | 6,557,811        | 14,567,671        | 29,438,044  | 16,844,940        | 3 "               |
| " 28....    | 21,266,561   | 6,987,808        | 14,685,087        | 29,824,704  | 16,178,815        | 3 "               |
| June 4....  | 21,515,268   | 7,518,007        | 13,188,186        | 29,841,864  | 15,489,723        | 3 "               |
| " 11....    | 21,829,641   | 8,325,516        | 13,156,662        | 31,396,493  | 15,036,100        | 3 "               |
| " 18....    | 21,076,059   | 9,372,949        | 13,085,271        | 31,342,547  | 15,268,458        | 3 "               |
| " 25....    | 21,172,057   | 9,629,594        | 13,399,245        | 31,424,661  | 15,909,688        | 3 "               |
| July 2....  | 22,242,361   | 9,672,845        | 13,851,869        | 32,709,089  | 16,220,771        | 3 "               |
| " 9....     | 22,504,490   | 5,429,989        | 17,199,715        | 31,287,912  | 17,055,537        | 2½ "              |
| " 16....    | 23,085,409   | 5,223,880        | 17,063,630        | 30,942,358  | 17,671,890        | 2½ "              |
| " 23....    | 22,942,503   | 5,291,218        | 17,202,923        | 30,631,501  | 18,060,617        | 2 "               |
| " 30....    | 22,933,086   | 5,895,840        | 16,903,068        | 30,542,050  | 18,448,443        | 2 "               |
| Aug. 6....  | 23,378,393   | 6,157,358        | 15,232,959        | 30,162,297  | 17,956,988        | 2 "               |
| " 13....    | 22,920,727   | 6,838,546        | 14,594,854        | 29,929,352  | 17,778,846        | 2 "               |
| " 20....    | 22,900,555   | 7,150,252        | 14,568,007        | 30,309,703  | 17,674,604        | 2 "               |
| " 27....    | 22,079,890   | 7,608,882        | 14,865,006        | 30,106,295  | 17,678,698        | 2 "               |
| Sept. 3.... | 22,848,918   | 7,671,934        | 14,973,470        | 30,808,748  | 17,825,220        | 2 "               |
| " 10....    | 21,895,385   | 8,768,329        | 13,809,643        | 30,504,527  | 17,611,538        | 2 "               |
| " 17....    | 21,610,987   | 9,074,279        | 13,733,905        | 30,700,116  | 17,365,753        | 2 "               |
| " 24....    | 21,800,731   | 9,268,108        | 13,825,230        | 30,874,552  | 17,166,742        | 2 "               |
| Oct. 1....  | 22,365,351   | 8,486,834        | 13,595,837        | 31,140,897  | 16,949,137        | 2 "               |
| " 8....     | 22,137,670   | 8,333,779        | 13,580,122        | 31,101,260  | 16,548,156        | 2 "               |

The subjoined table will be found of interest, affording a comparative view of the bank returns, the bank rate of discount, the price of consols, the price of wheat in London, and the leading exchanges during a period of

three years, corresponding with the date of the last returns (October 8th, 1862) given above :

| At corresponding dates with the week ending October 8, 1862. | 1860.       | 1861.       | 1862.       |
|--------------------------------------------------------------|-------------|-------------|-------------|
| Circulation.....                                             | £22,112,986 | £21,874,563 | £22,137,670 |
| Public deposits.....                                         | 6,588,944   | 4,893,914   | 8,333,779   |
| Other deposits.....                                          | 12,813,771  | 12,028,885  | 13,530,122  |
| Government securities.....                                   | 9,663,460   | 10,733,123  | 11,252,556  |
| Other securities.....                                        | 19,582,595  | 17,440,363  | 19,751,704  |
| Reserve of notes and coin.....                               | 8,547,308   | 7,859,634   | 9,828,331   |
| Coin and bullion.....                                        | 15,425,618  | 14,141,519  | 16,548,156  |
| Bank rate of discount.....                                   | 4 p. c.     | 3½ p. c.    | 2 p. c.     |
| Price of consols.....                                        | 93          | 92½         | 94          |
| Average price of wheat.....                                  | 58s 3d      | 57s 0d      | 51s 1d      |
| Exchange on Paris (short).....                               | 25 12½ 20   | 25 80 37½   | 25 17½ 25   |
| Amsterdam ".....                                             | 11 14½ 14½  | 11 19 19½   | 11 15 15½   |
| Hamburg (3 months).....                                      | 13 5½ 6½    | 13 10 10½   | 13 7½ 8     |

### BANK OF FRANCE.

#### MONTHLY RETURNS.

We give this month, and shall hereafter continue to give, the monthly returns of the Bank of France. It will be seen that, compared with last month, there is evidently an increased demand for money. The recent large advance on the Bourse in all securities, and especially in Credit Mobilier shares—in the latter, more than 200 francs in a fortnight—will perhaps be considered sufficient cause for the additional demand. The following alterations will be noted :

|                                               |            |
|-----------------------------------------------|------------|
| An increase in bills discounted of.....francs | 65,734,383 |
| An increase in circulation.....               | 31,006,150 |
| An increase in deposits.....                  | 9,558,789  |
| A decrease in specie.....                     | 29,642,347 |

We also give for comparison the returns of a year ago :

(Capital, 182,500,000 francs.)

|                 | Circulation.<br>Francia. | Ota. | Specie.<br>Francia. | Ota. | Commercial bills<br>discounted.<br>Francia. | Ota. | Deposits.<br>Francia. | Ota. |
|-----------------|--------------------------|------|---------------------|------|---------------------------------------------|------|-----------------------|------|
| April, 1862,... | 839,399,325              | .    | 416,055,202         | 33   | 563,797,882                                 | 74   | 188,389,542           | 5    |
| May.....        | 818,843,325              | .    | 415,761,840         | 61   | 489,132,252                                 | 98   | 181,765,440           | 78   |
| June.....       | 760,461,075              | .    | 416,637,648         | 2    | 486,477,069                                 | 26   | 190,365,272           | 46   |
| July.....       | 794,113,175              | .    | 972,221,960         | 5    | 547,683,539                                 | 73   | 217,500,654           | 30   |
| August.....     | 732,429,125              | .    | 384,952,389         | 6    | 503,444,419                                 | 47   | 200,103,641           | 12   |
| September.....  | 761,215,625              | .    | 371,512,263         | 60   | 460,295,713                                 | 18   | 166,208,671           | 2    |
| October.....    | 792,221,775              | .    | 341,869,316         | 62   | 526,080,096                                 | 5    | 175,767,460           | 53   |
| October, 1861.. | 766,439,725              | .    | 304,761,228         | 12   | 579,835,336                                 | 36   | 145,233,242           | 14   |

### FRENCH BUDGET OF 1863.

A report from M. FOULD, Minister of France, to the Emperor, on the financial situation of France, was published during the first week of October. The correspondence of the London *Economist* referring to it, states that the Minister begins by speaking of the Budget of 1863. He says that, "owing to the additions made to certain taxes, and to modifications in others, the Budget of that year will present an excess of receipts of 8,360,041 francs (£334,400;) but he admits that this sum is not sufficient to guarantee the

equilibrium and provide for unforeseen necessities." He, however, calculates that the yield of indirect taxes will be considerably greater than the 1,104,370,000 francs for which they are set down in the Budget, especially as the inconvenience caused by the bad harvest of 1861 will have terminated; and should the war in America cease, and so put an end to the suffering occasioned by the want of cotton and the loss of trade, he even calculates on being able to provide for the expenses of the expedition to Mexico. With regard to the Budget of the present year, it was, he says, voted with a surplus of 4,300,997 francs, but supplementary credits were afterwards accorded to the amount of 200,116,382 francs, so that a sum of 195,815,385 francs (£7,832,616) had to be provided. The Minister gives a detail of the items composing this total. Among them are 50,512,190 francs to the Ministry of War, 75,690,816 francs to the Ministry of Marine, and 4,165,000 francs for "obligatory expenses," but what those expenses are he does not state. He then gives the following detail of the manner by which he expects to be able to provide for the payment of this large sum of 195,815,385 francs:

|                                                                                     |             |
|-------------------------------------------------------------------------------------|-------------|
| Augmentation in direct taxes.....francs                                             | 4,713,000   |
| "    in revenue from forests.....                                                   | 3,304,000   |
| "    in indirect taxes.....                                                         | 20,000,000  |
| Addition to registration and stamp duties for six months                            | 19,350,000  |
| "    to sugar duties for six months.....                                            | 18,420,000  |
| Reserve of the sinking fund.....                                                    | 1,069,000   |
| Indemnity from China.....                                                           | 10,000,000  |
| Payment by Spain .....                                                              | 25,000,000  |
| Balance of the loan of 1855 for works for preventing inundations.....               | 2,000,000   |
| Balance of the loan of 1859, and of consolidations of the dotation of the army..... | 42,330,000  |
|                                                                                     | <hr/>       |
|                                                                                     | 146,186,000 |
| Deduct anticipated decline in the revenues of Algeria..                             | 4,894,000   |
|                                                                                     | <hr/>       |
|                                                                                     | 141,292,000 |

But this sum is less by 54,523,385 francs than the 195,815,385 francs required. "As, however," says the Minister, "the new mode of paying the dividends of the three per cent stock will leave disposable in the chapter of the debt a sum of 35,000,000 francs," and as about an equal sum will be saved by annulments of credits accorded, he will have, he says, "70,000,000 francs to place opposite the 54,000,000 francs which are wanting, and to provide for the miscalculations which may arise in the latter months of the year." The manner in which the first 35,000,000 francs will be gained is, perhaps, a little singular. The dividends of the three per cent stock having been made payable quarterly instead of half-yearly, the government, in place of paying 70,000,000 francs in December, as it used to do, pays one-half on the 1st of October and the other half on the 1st of January. It is thus able to throw over to next year what is really due for this, and what, but for the change referred to, would have been paid in this. If the dividends had been made payable the 31st of December instead of the 1st of January, M. FOULD would have been minus 35,000,000 francs—a difference

of four-and-twenty hours saves him. But may we not regard this as a mere juggling with figures rather a *bona fide* provision for a deficit?

The minister next mentions various matters. The first is that *découvertis* (all that is due) which at the end of 1860 were 848,000,000 francs, rose on the 1st January, 1862, to 1,024,503,000 francs, but have since been reduced to 867,000,000 francs, by the employment of 157,000,000 francs received by the government in the conversion of the four-and-a-half per cent stock into threes, for the difference in value between the old stock and that given in exchange. (The 157,000,000 francs are round figures, as in a subsequent part of the report the amount received is stated at 157,631,289 francs.) Of the 867,000,000 francs, a sum of 665,839,018 francs is represented by what is called floating debt—in other words, by treasury bills and other securities given by the government. The minister states that the Bank of France on the 1st of July last placed at the disposition of the government 35,000,000 francs, which, after deducting 25,000,000 francs due by the government to the bank, made up the 60,000,000 francs which the latter was bound to advance without interest for the renewal of its privilege. With respect to the conversion, the minister says that of 174,151,366 francs rente to be converted (interest is meant, not capital,) 134,914,481 francs were actually converted, and that for that measure 160,431,289 francs were to be, or are to be, paid to the government. But the expenses of the operation for “printing, supplementary clerks, commission, discount, and other expenses,” was about 2,800,000 francs, so that there remains for the treasury 157,631,289 francs. The sum of 2,800,000 francs is such a large one that an account of the items comprising it would have been desirable; the public in particular would like to know the amount of the commission, and to whom it went; but on these points M. FOULD is silent. The portion of the rente unconverted is only 39,236,885 francs, and about half of it cannot be touched on account of legal obstacles. “The rest,” says M. FOULD, “forms so small a part of the public debt, and is so easy to assimilate, that it cannot present any impediment to the elevation of the threes, the price of which is now the undisputed regulator of our credit. The principal object of the operation,” he adds, “is therefore attained, and the remodelling of the debt, which amounted to more than 3,500,000,000 francs in capital, has been made without any shock and without any serious difficulty, although it had to encounter certain political embarrassments. The re-classification of the *rentes* which passed from the hands of the old proprietors to those of the speculators seems complete. The influence of the conversion,” he continues, “has been considerable. It has been felt in all securities without injuring the three per cent stock, the average price of which, without injuring the three per cent *rente*, was in the first months of the year above the average price of the same period in the preceding year. Other securities, such as shares of the bank and of financial and railway companies, have risen in a much larger proportion, and have consequently added a very large sum to the national wealth. The measure has also facilitated the execution of great public works and the completion of the network of railways, by permitting companies to place more easily and at a higher rate the debentures which they are authorized to issue.” The minister next refers to the thirty years railway bonds. He says that out of 675,100 issued, 604,618 have been exchanged for three per cent stock, and “as the *rente* given in exchange,” he adds, “is not provided with a special sinking fund, it has been possible to reduce the expenses

of the public debt for 1863 by a sum of 4,245,000 francs, which has facilitated the abandonment of certain taxes which were proposed." In conclusion, the minister says that the financial situation may be thus summed up: Reduction of deficits previous to 1862 by 157,000,000 francs; no deficit for 1862; and a reserve which may be estimated at 80,000,000 francs for 1863.

#### BANKS OF WISCONSIN.

The following is an extract of the report of Hon. WM. H. RAMSEY, Bank Controller of Wisconsin, made October 1st:

The following stocks have been decreased since statement of September 1st, 1862, viz:

|                    |         |                        |           |
|--------------------|---------|------------------------|-----------|
| Virginia 6s.....   | \$4,000 | Tennessee 6s.....      | 22,000    |
| Louisiana 6s.....  | .6,000  | North Carolina 6s..... | 34,000    |
| Illinois 6s.....   | 26,490  | New York 6s.....       | 3,090     |
| Michigan 6s.....   | 12,000  | Georgia 6s.....        | 500       |
| Ohio 6s.....       | 3,000   | Louisiana 5s.....      | 1,000     |
| California 7s..... | 22,000  |                        |           |
| Missouri 6s.....   | 42,000  | Total.....             | \$175,990 |

The following stocks have been increased since statement of September 1st, 1862:

|                       |          |
|-----------------------|----------|
| Wisconsin 6s.....     | \$64,700 |
| United States 6s..... | 123,000  |
| “ 7 3-10s.....        | 67,000   |

Total.....\$254,700

The circulation has been increased during last month 208,278

The whole amount of circulation outstanding is—

|                        |           |
|------------------------|-----------|
| Par banks.....         | 2,001,441 |
| Discredited banks..... | 163,810   |
| Winding up.....        | 84,123    |

Total.....\$2,249,374

The following banks have gone into operation since last report: Merchants' and Milwaukee County Bank, located at Milwaukee; also Bank of La Crosse, located at La Crosse.

#### FINANCES OF VERMONT.

From the message of Governor HOLBROOK, of Vermont, to the Legislature of that State, it appears that the receipts for the fiscal year ending September 1, 1862, were \$1,442,509, and the disbursements \$1,218,250, leaving a balance in the treasury of \$224,250. The liabilities of the State on September 1, were \$1,164,977, and the resources \$552,868, of which \$234,988 is a balance due from the United States. The indebtedness of the State in excess of its resources is funded in State bonds, payable in ten years from June 1, 1860. The expenses of the current year are estimated at \$1,334,839.

**BANKS OF ILLINOIS.**

The Bank Commissioner's official statement of the securities and circulation of the banks of Illinois, as they existed on Monday, the 15th day of September, 1862, is as follows:

|                                            |              |
|--------------------------------------------|--------------|
| Illinois 6s.....                           | \$320,900 00 |
| Illinois and Michigan Canal.....           | 151,583 33   |
| Illinois new Internal Improvement Stock... | 65,649 00    |
| United States 5s.....                      | 15,000 00    |
| Ohio 6s.....                               | 6,000 00     |
| Missouri 6s.....                           | 4,000 00     |
| North Carolina 6s.....                     | 2,000 00     |
| <hr/>                                      |              |
| Total.....                                 | \$574,532 33 |
| Circulation.....                           | 511,280 00   |

**DEBT OF MEXICO.**

The amount of Mexico's debt to England, France, and Spain is as follows:

|                                                                                                  |              |
|--------------------------------------------------------------------------------------------------|--------------|
| The two loans contracted in London, in 1824 and 1825 represent, with the interest accruing. .... | \$62,264.332 |
| The English Convention. ....                                                                     | 5,000,000    |
| The French Convention. ....                                                                      | 150,000      |
| The Spanish Convention. ....                                                                     | 6,563,000    |
| Interest on the latter. ....                                                                     | 1,246,000    |
| <hr/>                                                                                            |              |
| Total.....                                                                                       | \$75,224,332 |

The domestic debt amounts to \$21,725,572, making the whole public liability amount to nearly \$97,000,000.

If, to the exact sum of the above liabilities, we add \$52,141,839 of the Peza and Jecker bonds, issued by MIRAMON and ZULOAGA, we have a general total of \$149,091,474.

**TAXATION OF GOVERNMENT SECURITIES—LEGAL DECISION.**

The Supreme Court, General Term, in New York, before Judges INGRAM, CLERKE, and BARNARD, rendered the decision (Judge CLERKE dissenting) that all United States bonds, stocks, etc., issued before the passage of the act of Congress, September 7, 1862, which pronounced them exempt from taxation, are liable to taxation under a State assessment as personal property. The New York city banks hold about \$12,000,000 of those which are liable to State taxation under this decision. But the court furthermore decided that all United States bonds, stocks, etc., issued after the passage of the said act of Congress on September 7th, 1862, are exempt from taxation or assessment by the State.

Of course, this case will be carried to the Court of Appeals, and we do not look upon this decision, therefore, as of any importance, being only the conclusion of a part of the judges in one district of the eight that compose the Supreme Court of the State of New York.

## THE BALANCE OF TRADE.

The present high rates obtained for gold and exchange is thus referred to, and in a measure accounted for by the *Journal of Commerce* :

"The total imports of foreign merchandise at New York from January 1st to the close of last week amounted to \$138,105,422 as per Custom-house value, while the exports for the same time amounted to \$109,518,220 in produce, and \$43,556,214 in specie, making a total of \$153,074,434 in exports against only \$138,000,000 in imports. If the other ports taken together give an equal amount of imports and exports, so that the balance of trade is left for this port to settle, it will be seen that there is about \$15,000,000 in our favor. If this were the true balance, and no other causes interfered, there could be no reason for an active demand for bills of exchange at a rate so far above the value of our paper currency. It is evident, therefore, that there is a large balance still to be remitted for on the other side.

"What then is this balance and how does it arise? We answer that a portion of it comes from the fact that there is now a legal undervaluation of foreign imports at the Custom-house. The appraisers are bound to fix the dutiable value of goods at the port of shipment, but this may not represent their cost as compared with our currency. Thus, a pair of blankets may be worth in England one pound sterling, and the appraisers agree with the importer in establishing that as the dutiable value. But how much is one pound sterling in federal currency? It is actually at present about \$6.12 in our paper money; but according to law it is only \$4.84, so that the returns of imports, being made by this arbitrary standard, are partly below the amount to be paid for the goods received, even exclusive of profits."

Such is undoubtedly a correct explanation; and when we take into the account the return of stocks held abroad, and the transmission from this country by the timid, of funds for deposit or investment in Europe, we will readily see sufficient cause for our being so largely in debt to Europe.

## BANK OF ENGLAND—ACCESS TO THEIR BULLION ROOM.

A correspondent of the *Birmingham Post* tells the following strange story: "The directors of the Bank of England received recently an anonymous letter, stating that the writer had the means of access to their bullion room. They treated the matter as a hoax, and took no notice of the letter. Another more urgent and specific letter failed to rouse them. At length the writer offered to meet them in the bullion room at any hour they pleased to name. They then communicated with their correspondent through the channel he had indicated, appointing some dark and midnight hour for the rendezvous. A deputation from the board repaired to the bullion room, locked themselves in, and waited the arrival of the mysterious correspondent. Punctual to the hour a noise was heard below. Some boards in the floor were without much trouble displaced, and in a few minutes the Guy Fawkes of the bank stood in the midst of the astonished directors. An old drain ran under the bullion room, the existence of which had become known to him, and by means of which he might have carried away enormous sums. Nothing had been abstracted, and the directors rewarded the honesty and ingenuity of their anonymous correspondent—a working man—by a present of £300.



## COMMERCIAL REGULATIONS.

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1. IMPORTANT INSTRUCTIONS TO THE COLLECTORS. 2. DECISIONS ON THE TAX LAW. 3. REAL ESTATE SALES AND THE TAX LAW. 4. BANKS MUST TAKE OUT BROKERS' LICENSE TO DEAL IN EXCHANGE. 5. TAX LAW—BOTTLED SPIRITS, ETC. 6. STAMP DUTY ON BOND AND MORTGAGE. 7. STAMPS ON CHECKS AND DRAFTS MUST BE CANCELLED BY THE DRAWER. 8. DUTIES ON IMPORTS IN VENEZUELA.

### IMPORTANT INSTRUCTIONS TO THE COLLECTORS.

THE collectors appointed under the recent act of Congress, to collect the national tax, are making their arrangements and will soon commence operations. The Commissioner of Revenue at Washington has just issued the following important regulations to the collectors at Philadelphia, which apply equally to collectors elsewhere:

1. All mechanics, except those who merely do repairs, must be registered as manufacturers, and must take out a license as such if their annual sales amount to \$1,000.

2. But mechanics and other manufacturers who sell their own manufactures at the place where they are produced are not required to take out an additional license as traders. This does not include rectifiers, who must pay both licenses.

3. If manufacturers have an office, depot, store-room, or agency, at a place different from the place where the goods are made, or if they sell the manufactures of others, in addition to their own, they must pay a traders' as well as a manufacturers' license. Thus, a tobacconist who both makes cigars and keeps for sale goods in his line which he has purchased must take out both licenses. So must a druggist, who also makes patent articles, or medicines, &c., for which he has a private formula or receipt.

4. Persons keeping bar-rooms or saloons for the sale of liquors must take out a liquor dealers' license. If they also furnish food, they must, in addition, take out an eating-house license; and the sale of cigars, &c., requires a tobacconist's or retail dealer's license beside. Billiard tables require a special license, and bagatelle tables are reckoned as billiards.

5. Commission merchants, who are also ship or commercial brokers, are required to take out two licenses.

6. Grocers selling flour by the barrel, or salt by the sack, or any other article in the original package, are reckoned as wholesale dealers.

7. Stamps must be attached to the papers requiring them, at the time of their execution, and must be obliterated by the person writing his initials upon them. Telegraphic dispatches must be stamped and effaced when delivered to be transmitted. But railroad and telegraph companies are not required to stamp their own dispatches over their own lines.

8. Arrangements will be made with the collector of this district to supply stamps to parties desiring to purchase \$50 worth or over, at the rates of discount established by the Treasury Department.

9. Notes and bills of exchange drawn for a certain sum, with interest, will be stamped according to the principal sum. Foreign currency will be estimated at the real par of exchange; the pound sterling, for instance, at the rate fixed for sovereigns, not at the nominal rate of \$4 43 $\frac{1}{2}$ , nor at the market rate of exchange, which is now something above the real par.

10. On and after October 1st the following instruments must be stamped : All agreements, appraisements, checks, sight drafts, promissory notes, inland and foreign bills of exchange, bills of lading to foreign ports, packages, &c., per express, bonds, certificates of stock, or profit, of deposit in banks, of damages, and all other certificates, charter parties, brokers, memorandums, conveyances, mortgages, leases, telegraph dispatches, custom house entries and manifests, policies of insurance—life, marine and fire, and renewals of same—passage tickets to foreign ports, powers of attorney, proxies, probate of wills, protest, warehouse receipts, and writs or other original process for commencing suit. Also, patent medicines, perfumeries, and playing cards.

In reference to public houses and liquor dealers exclusively, it is defined that in a tavern or public house where liquor is sold licenses must be taken for each business, the license for the tavern to be according to the rental, and the license for liquor in all cases of retail to be twenty dollars. By retail is understood any quantity under three gallons. To sell above that quantity is wholesale, and the license is one hundred dollars. Restaurants which furnish bedding, and which keep liquors, are required to obtain three licenses—first a tavern license, secondly a license for the liquor bar, of twenty dollars, and thirdly a license for the eating bar, costing ten dollars, when the receipts amount to or exceed one thousand dollars per year. Eating houses are permitted to keep confectionery without an additional license.

All dealers in liquor by retail are required to pay a license of twenty dollars per year. The penalty for refusal or failure to take out license is a fine of three times the amount of duty or tax imposed by the law, one-half of which goes to the informer. These taxes are, of course, in addition to the State and city licenses now imposed, and the accumulation of expenses will materially affect the smaller dealers who abound in every part of the city. The prosecution of delinquents is made imperative on the collectors, who hold the names and residences of all dealers, so that escape from the penalty is next to impossible.

#### DECISIONS ON THE TAX LAW.

*Treasury Department, Office of Internal Revenue, }*  
*October 2d, 1862. }*

GENTLEMEN :—I have received your letter of the 24th inst., and reply to the several inquiries made therein as follows :

1. Persons who manufacture articles which are exempt from ad valorem duty, are not subject to license tax as manufacturers. The provision in section sixty-six relating to manufacturers, does not apply to them, and they are to be licensed as wholesale or retail dealers, as the case may be.

2. Bankers, who, besides their regular business as defined in the first article of section sixty-four, do business as brokers, as defined in article thirteen of the same section, should be licensed both as bankers and brokers.

3. Two or more lawyers in actual and legal partnership, require but one license for such partnership.

4. Butchers and others who retail meat in market places or stores, should be licensed as retail dealers ; if they sell their meat from carts, going from house to house, a peddler's license is required for each cart thus employed.

5. The excise law became operative, with respect to legacies and distributive shares of personal property, upon its passage, July 1st, 1862.

6. Any person whom the assessor deems proper, may have the custody of the assessor's lists during the fifteen days they are to be open for public inspection.

7. Rectifiers, as defined in article eight, section sixty-four, are not required to pay an ad valorem duty on their products; but do require license as dealers in liquor in order to sell.

8. For a full discussion of the questions relating to the duty on manufactures removed from the place of manufacture prior to Sept 1st, I refer you to the opinion of the Solicitor of the Treasury herewith enclosed.

9. Where brewers run a small still to dispose of spoiled beer, merely as an incident to their legitimate and proper business, I think a distiller's license is not necessary.

10. The law does not authorize the revenue officers to administer oaths, except as provided in sections forty-eight and fifty-two. I agree with you that they should be so authorized, and I think that Congress will amend the law in this particular. In some instances, State authorities have given assistants this power, by appointing them notaries or justices of the peace.

11. Inspectors must obtain the necessary instruments for their business, and charge accordingly in their fees for inspection. I do not know where they are to be obtained.

12. The printed instructions, No. 2, give all the information respecting collector's seals that appears necessary.

13. The same instructions contain the required information respecting drawback.

I am, respectfully,

Your obedient servant,

GEO. S. BOUTWELL, *Commissioner*.

To Messrs. A. P. STONE, Collector 7th District, Ohio, R. M. W. TAYLOR, Collector 2d District, C. S. HAMILTON, Assessor 8th District, Committee.

#### REAL ESTATE SALES AND THE TAX LAW.

The following correspondence in relation to the operation of the tax law upon real estate is important:

No. 106 BROADWAY, N. Y., October 9.

To the Hon. the Commissioner of Internal Revenue:

SIR: Referees have many sales of real estate under foreclosure proceedings where there is a prior mortgage upon the property: and very often the amount bid is so much "over and above the prior mortgage," and in the referee's deed is inserted the amount of the bid, with the words, that "the property is conveyed subject to said prior mortgage."

Supposing the fact to be that a referee sells a lot of ground for \$6,500, subject to and over and above a prior mortgage of \$5,000. The deed names \$6,500 as the consideration money, and also contains an announcement that the property is sold subject to said prior mortgage of \$5,000. Now I desire to know whether the stamp duty is to be paid on the amount of the bid only, (viz. \$6,500,) or on the amount of the bid, including the mortgage, (viz. \$11,500.)

Again, by section seventy-six of the tax bill it is enacted that there shall

be levied, collected, and paid on all sales of real estate \* \* \* at auction, a duty of 1.10 per centum on the gross amount of such sales—provided that no duty shall be levied under the provisions of this section upon any sales by judicial or executive officers making auction sales by virtue of a judgment or decree of any court.

I desire to be informed—

First—Whether the duty is to be charged on the amount of the bid, or on the amount of the bid including amount of the prior mortgage.

Second—Whether “referees” appointed by the court to sell in foreclosure or partition suits are considered by you as judicial or executive officers.

By giving this your immediate attention you will much oblige

Yours, respectfully,

CHAS. H. HINNAU.

*Treasury Department, Office of Internal Revenue, }  
Washington, October 18.*

SIR: Your letter of the 9th inst. is at hand. You ask if a piece of ground is sold subject to a mortgage on what amount must the stamp duty be paid. I answer, upon the amount of the *consideration named* in the deed—any fraud in naming the amount would invalidate the instrument.

Your second inquiry upon sales of mortgaged real estate at auction is upon the same principle. The tax on the sale will only be required on the amount bid and paid over the mortgage.

I am of opinion that “referees” appointed by the court to sell in foreclosure or partition suits cannot be regarded as judicial or executive officers.

Very respectfully, GEO. S. BOUTWELL, *Commissioner*.

CHAS. H. HINNAU, Esq., 106 Broadway, N. Y.

#### BANKS MUST TAKE OUT BROKERS' LICENSES TO DEAL IN EXCHANGE.

The following correspondence between Messrs. ROCHESTER, bankers of Rochester, N. Y., and Commissioner BOUTWELL, settles the question as to the licenses required by bankers and brokers to enable them to transact business under the tax law:

*Office of John H. Rochester & Brother, }  
Bankers, Rochester, N. Y., Oct. 8.*

Hon. GEO. S. BOUTWELL, *Commissioner of Internal Revenue, Washington, District of Columbia:*

DEAR SIR: In section 64 of the tax bill, clause 1, bankers are charged \$300 license; in clause 13 brokers are charged \$50, and in clause 15 land warrant brokers are charged \$27.

Is it intended that parties whose business includes all these branches shall pay for each license, or does the greater include the less, and is a person taking out a license as a banker, and paying \$100 therefor, entitled to engage in the other branches of the business alluded to without paying for additional licenses?

We ask these questions because we presume there is not a single banker in the country who is not also a broker, as defined by the tax bill, and very many of them are also land warrant brokers.

Are incorporated banks, who pay no license, entitled to deal in coin, currency, or exchange, or any of them, that is, by purchase and sale at a premium or discount?

Respectfully,

JNO. H. ROCHESTER & BROTHER.

*Treasury Department, Office of Internal Revenue, Washington, Oct. 11.* }

GENTLEMEN: In answer to your communication of the 8th instant, I must say that parties doing business as bankers, brokers, and land warrant brokers must take three licenses. See section 61, excise law.

Incorporated banks dealing in coin, currency, and exchange are subject to license as brokers. Very respectfully,

(Signed)

GEORGE S. BOUTWELL,

*Commissioner of Internal Revenue.*

Messrs. JOHN H. ROCHESTER & BRO., Rochester, N. Y.

#### TAX LAW—RECTIFIED SPIRITS, ETC.

*Office of Collector of Internal Revenue, Fourth District, State of New York.* }  
NEW YORK, 85 Franklin Street, October 9, 1862 }

SIR: 1. \* \* \* Must rectified spirits be inspected after being rectified, in those cases in which the article rectified had been inspected before it was subjected to the process of rectifying?

2. Are rectified spirits subject to any and what duty, after being rectified, in those cases in which a duty shall have been paid upon the article rectified before it was subjected to the rectifying process?

3. A large distinct business is done in the manufacture of "cordials," but the article is not specifically named or provided for in the act. Cordials being made in good part of spirits, may, I think, be properly considered as embraced in the definition of a "rectifier" in subdivision eight of section 64 of the act, and be subjected to the same duty or tax. The provisions of the law requiring inspection would not, however, it seems to me, apply to the manufacture of cordials.

Am I right in this view of the business?

4. The manufacture or distillation of syrups—lemon, sarsaparilla, etc.—is also a large business which is not provided for by name in the law. Being made from sugar or saccharine matter, mixed with other materials, they may, I think, be properly considered as a "manufacture," and be taxed as such, under the clause or paragraph of section 75, commencing "on all manufactures of cotton," &c., or of other materials *not in this act otherwise provided for*, "a duty of three per centum ad valorem." Is this opinion of the liability of the article correct?

5. Under the peculiar conjunctive phraseology of section 77, declaring that from and after the first day of May, 1862, there shall be levied, collected, and paid by any person or persons owning any carriage, yacht "and" billiard table, the several duties, etc., set forth in schedule A, can a duty be demanded from a person who keeps for use *only a carriage or carriages*, of the kind designated, and *no yacht and billiard table*, and so also as to the owner of a yacht or billiard table only? Or will the word "and" in the law be read by intendment "or?"

6. Are persons who purchase foreign imported cloths, silks, muslins, laces, or other dutiable articles, and cut up and convert the same into garments or articles of wearing or personal apparel and offer them for sale to an amount exceeding annually \$1,000, to be considered "*manufacturers*," and taxed three per centum on the amount of their stock of such garments or articles of personal apparel? or, under the *proviso* of section 75, which declares "That on all cloths, etc., manufactured into other fabrics, etc., on which a duty shall have been paid before the same were so \* \* \* manufactured, etc., the tax of three per centum shall be assessed only upon the increased value thereof? Ought this duty of three per cent to be assessed only upon the *increased value* of the stock manufactured into personal apparel by the class of persons referred to?

I am, Sir, very respectfully, your ob't servant,

JOHN MACK, *Collector Fourth District.*

To HON. GEO. S. BOUTWELL, *Com. Internal Revenue.*

*Treasury Department, Office of Internal Revenue, }*  
*October 13, 1862. }*

SIR: Your letter of the 9th inst. has been received. 1 and 2. Your first and second questions are answered by my decision of the 6th inst., according to which the basis for calculating the amount of license duty that a rectifier of liquor is subject to, under the internal revenue law, is the *number of barrels* or casks containing not more than forty-nine gallons each *produced* by the process of rectification, and *not on the quantity of proof liquor used*. Rectifiers will keep a record of the quantity of liquor produced, and will be required to make a monthly return of the same to the assistant assessor, subscribed and sworn, and pay the amount of license tax accrued thereon when required by the collector.

It follows that the article rectified, before it was subjected to the rectifying process, need not be regarded by the collector, who has simply to exact a rectifier's license, according to the quality of liquor rectified.

3. You are right in considering the manufacture of cordials as embraced in the definition of subdivision 3 of section 64.

4. The manufacture of "syrops"—lemon, sarsaparilla, etc.—is to be considered as a "*manufacture*" under the clause which you quote, and to be taxed three per centum ad valorem.

5. Section 77, in speaking of "any person or persons owning, possessing, or keeping any carriage, yacht, and billiard table," is to be interpreted as referring to three different classes of owners, viz: Such as possess *any* carriage; *and*, as a second class, such as possess *any* yacht; *and*, as a third class, such as possess *any* billiard tables. If you read the passage thus, your scruples with regard to the interpretation of the word "*and*" will disappear. It is, I believe, in strict accordance with grammar and usage to employ it thus, with the force of "*or*."

6. Your sixth question is answered by this department, that manufacturers of clothing are required to pay duty on the whole value of goods manufactured by them, and not on the *increased value* of their goods over the value of the cloth. This principle holds good generally, with regard to all manufactures. The exceptions are found in section 75.

I am, Sir, very respectfully,

GEO. S. BOUTWELL, *Commissioner.*

JOHN MACK, *Collector Fourth District.*

**STAMP DUTY ON BOND AND MORTGAGE.**

The following letter from the Commissioner of Internal Revenue has been received in answer to an inquiry :

*Treasury Department,*  
*Office of Internal Revenue, Oct. 11. }*

SIR: Your letter of the 9th instant has been received. A separate stamp is required for each document—one for the bond and another one for the mortgage.

I am, very respectfully,

GEO. S. BOUTWELL, *Commissioner.*

TO ISAAC BUTTS, Esq., *Rochester, N. Y.*

**STAMPS ON CHECKS AND DRAFTS MUST BE CANCELED BY THE DRAWER.**

The following is another important decision under the Internal Revenue law :

*Treasury Department, Office of Internal Revenue, }*  
*Washington, October 23, 1862. }*

I would say that when the maker of a check, draft, note, or any other document shall neglect to put on the required stamp, it will not do for the party receiving the same to affix the stamp and cancel it, but it must be returned to the maker for him to do it.

GEO. S. BOUTWELL, *Commissioner.*

**DUTIES ON IMPORTS IN VENEZUELA.**

*Department of State, Washington, Oct. 15.*

The following decree, received from the United States consulate at Maracaibo, Venezuela, imposing twenty-five per cent additional duty on merchandise imported into that republic, is published for the information of those whom it may concern :

**DECREE REQUIRING THE CUSTOM-HOUSE OF THE REPUBLIC TO COLLECT A DUTY OF TWENTY-FIVE PER CENT UPON THE ORDINARY DUTIES OF IMPORTATION.**

I, JOSE ANTONIO PAEZ, Supreme Chief of the nation, do decree :

ART. 1. There shall be levied by the custom-houses of the republic a duty of twenty-five per cent upon the ordinary duties of importation, besides that of fifty per cent which is levied under the existing regulations.

ART. 2. The levying of this twenty-five per cent will begin and take effect within thirty days upon the imports which are paid from the Antilles; within sixty days upon those that are paid from the United States, and within ninety days for those that are paid from Europe.

These periods commence to run respectively from the publication of the present decree at the ports of the republic.

Given at the government palace, in Caracas, on this 18th day of August, 1862.

J. A. PAEZ, *The Secretary General.*  
PEDRO JOSE ROJAS.

## MERCANTILE MISCELLANIES.

1. THE LATE HIGH BALLOON ASCENT AT WOLVERHAMPTON. 2. AN AMUSING HISTORETTE DEVELOPED BEFORE THE PARIS POLICE. 3. VICISSITUDES OF SPECULATION. 4. FLOWER LEAVES IN FRANCE. 5. CURRENCY TERMS. 6. DEATH OF A FRENCH CENTENIEN. 7. HOARDING THE PRECIOUS METALS. 8. COMMON SENSE IN A MONEY PANIC. 9. LOOKING AHEAD. 10. MONEY GOES AS IT COMES. 11. RAYMUND LULLY—POWER TO MAKE GOLD. 12. LIBERALITY IN BUSINESS. 13. AN AUSTRIAN ANECDOTE.

### THE LATE HIGH BALLOON ASCENT AT WOLVERHAMPTON.

BY JAMES GLAISHER, ESQ., OF THE ROYAL OBSERVATORY, GREENWICH.

BALLOONING has been turned to account and we preserve for our readers Mr. Glaisher's interesting narrative of his late ascent. In this he reached the greatest height attained by a native of our globe, and shows the limits at which human life appears to be capable of support: indeed his ballooning voyages of late, but especially this, will be preserved as the most interesting on many accounts that have ever been made.

On the earth at 1h. 30m. the temperature of the air was  $59^{\circ}$ , at the height of one mile it was  $39^{\circ}$ , and shortly afterwards we entered a cloud of about 1,100 feet in thickness, in which the temperature of the air fell to  $36\frac{1}{2}^{\circ}$ , and the wet bulb thermometer read the same, showing that the air here was saturated with moisture. On emerging from the cloud at 1h. 17m. we came into a flood of light, with a beautiful blue sky, without a cloud above us, and a magnificent sea of cloud below, its surface being varied with endless hills, hillocks, mountain chains, and many snow white masses rising from it. I here tried to take a view with the camera, but we were rising with too great rapidity, and going round and round too quickly to enable me to do so; the flood of light, however, was so great, that all I should have needed would have been a momentary exposure, as Dr. Hill Norris had kindly furnished me with extremely sensitive dry plates for the purpose.

When we reached two miles in height, at 1h. 21m., the temperature had fallen to the freezing point. We were three miles high at 1h. and 28m. with a temperature of  $18^{\circ}$ ; at 1h. 39m. we had reached four miles, and the temperature was  $8^{\circ}$ ; in ten minutes more we had reached the fifth mile, and the temperature had passed below zero, and then read  $-2^{\circ}$ , and at this point no dew was observed on Regnault's hygrometer when cooled down to  $-30^{\circ}$ .

Up to this time I had taken the observations with comfort. I had experienced no difficulty in breathing, whilst Mr. Coxwell, in consequence of the necessary exertions he had to make, had breathed with difficulty for some time. At 1h. 51m. the barometer reading was 11.05 inches, but which requires a subtractive correction of 0.25 inch, as found by comparison with Lord Wrottesley's standard barometer just before starting, both by his lordship and myself, which would reduce it to 10.8 inches, or at a height of about  $5\frac{1}{2}$  miles. I read the dry bulb thermometer as  $-5^{\circ}$ ; in endeavoring to read the wet bulb I could not see the column of mercury. I rubbed my eyes, then took a lens and also failed.

I then tried to read the other instruments, and found I could not do so, nor see the hands of the watch. I asked Mr. Coxwell to help me, and he said, he must go into the ring and he would when he came down. I en-



deavored to reach some brandy which was lying on the table, at the distance of about a foot from my hand, and found myself unable to do so. My sight became more dim. I looked at the barometer, and saw it between 10 and 11 inches, and tried to record it, but was unable to write. I then saw it at 10 inches, still decreasing fast, and just noted it in my book; its true reading therefore at this time was about  $9\frac{3}{4}$  inches, implying a height of  $5\frac{1}{2}$  miles, as a change of one inch in the reading of the barometer at this elevation takes place on a change of height of 2,500 feet. I felt I was losing all power, and endeavored to rouse myself by struggling and shaking. I attempted to speak and found I had lost the power. I attempted to look at the barometer again; my head fell on one side; I struggled and got it right, and it fell on the other, and finally fell backwards. My arm, which had been resting on the table, fell down by my side. I saw Mr. Coxwell dimly in the ring; it became more misty, and finally dark, and I sank unconsciously as in sleep.

This must have been about 1h. 54m. I then heard Mr. Coxwell say, "What is the temperature? Take an observation. Now try." But I could neither see, move, nor speak. I then heard him speak more emphatically, "Take an observation. Now do try." I shortly afterwards opened my eyes, saw the instruments and Mr. Coxwell very dimly, and soon saw clearly, and said to Mr. Coxwell, "I have been insensible;" and he replied, "You have, and I nearly." I recovered quickly, and Mr. Coxwell said, "I have lost the use of my hands, give me some brandy to bathe them." His hands were nearly black. I saw the temperature was still below zero, and the barometer reading eleven inches but increasing quickly. I resumed my observations at 2h. 7m., recording the barometer reading 11.53 inches and the temperature  $-2$ . I then found that the water in the vessel supplying the wet-bulb thermometer, which I had by frequent disturbances kept from freezing, was one mass of ice.

Mr. Coxwell then told me that whilst in the ring he felt it piercingly cold, that hoar frost was all round the neck of the balloon, and on attempting to leave the ring he found his hands frozen, and he got down how he could; that he found me motionless, with a quiet and placid expression on the countenance; he spoke to me without eliciting a reply, and found I was insensible. He then said he felt insensibility was coming over himself, that he became anxious to open the valve, that his hands failed him, and that he seized the line between his teeth and pulled the valve open until the balloon took a turn downwards. This act is quite characteristic of Mr. Coxwell. I have never yet seen him without a ready means of meeting every difficulty as it has arisen, with a cool self-possession that has always left my mind perfectly easy, and given to me every confidence in his judgment in the management of so large a balloon.

On asking Mr. Coxwell whether he had noticed the temperature, he said he could not, as the faces of the instruments were all towards me: but that he had noticed that the centre of the aneroid barometer, its blue hand, and a rope attached to the car, were in the same straight line; if so, the reading must have been between seven and eight inches. A height of six miles and a half corresponds to eight inches.

A delicate self-registering minim thermometer read  $-12^{\circ}$ , but unfortunately I did not read it until I was out of the car, and I cannot say that its index was not disturbed on descending. When the temperature rose to  $17^{\circ}$  it was remarked as warm, and  $24^{\circ}$  as very warm.

The temperature gradually and constantly increased to 57° on reaching the ground. It was remarked that the sand was warm to the hand, and steamed on being discharged.

Six pigeons were taken up—one was thrown out at the height of three miles, it extended its wings and dropped as a piece of paper; a second at four miles flew vigorously round and round, apparently taking a great dip at each time.

A third was thrown out between four and five miles, and it fell downwards.

A fourth was thrown out at four miles when descending; it flew in a circle and shortly alighted on the balloon.

The two remaining pigeons were brought down to the ground. One was found dead, and the other, a "carrier," had attached to its neck a note. It would not, however, leave, and when cast off the finger returned to the hand. After a quarter of an hour it began to peck a piece of ribbon by which its neck was encircled, and it was then jerked off the finger, and it flew with some vigor finally towards Wolverhampton. Not one however had returned when I left on the afternoon of the 6th.

To much praise cannot be given to Mr. Proud, the engineer of the gas works, for the production of gas of such a small specific gravity.

It would seem from these facts that five miles is very nearly the limit of human existence. It is possible, as the effect of each high ascent upon myself has been different, that in another I might be able to go higher, and it is possible some persons may be able to exist with less air and bear a greater degree of cold, but still I think prudence would say to all, whenever the barometer reading falls as low as eleven inches, open the valve at once, the increased information to be attained is not commensurate with the increased risk.

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#### AN AMUSING HISTORiette DEVELOPED BEFORE THE PARIS POLICE.

In the presence of a wine merchant and his wife, two distinguished members of the *canaille*, SARIOL and TURBAN by name, entered into articles of copartnership for the purchase of a small keg of brandy, with the understanding that it was to be peddled out by the glass, at the fair of St. Denis, the annual fete of a village in the environs of the capital, the terms of the association being that the profits of the venture should be equally divided between the itinerant merchants. Everything was drawn up in due form, and among the various articles of the agreement, was one fixing the price of a "smaller" at four sous.

On the evening of the very first day that the partners commenced operations, both SARIOL and TURBAN were picked up by the police, in a most woful plight, their garments in rags, their eyes in deep mourning, and their scalps partially denuded of the capillary embellishments. Their financial situation may be summed up in two words—an empty keg and a copper coin of the value of two sous.

Appearing on the following morning before the police tribunal, charged with assault and battery and resistance to the public authorities, the following thoroughly Frenchy facts were elicited: The two speculators had duly started for the fair grounds at St. Denis, taking with them the keg of brandy. Upon arriving at the suburb of La Chapelle, SARIOL said to TURBAN, "TURBAN, my boy, I think I'll take a stiffener;" to which TURBAN replied, "Well,

I think that's cool, anyhow! You know, I s'pose, that that 'ere brandy isn't yours alone; it belongs to us both?" "That's so!" returned SARIOI, "and I'll tell you how we'll manage it; the price of a smaller is four sous, so I'll just give you two sous, and that'll make us square." "All right," said TURBAN, mollified, "that's fair enough." So SARIOI gave his partner a two sous piece and took his "stiffener."

The pair had gone but a short distance further when TURBAN suddenly remarked, "I think I'll take a rewiver now, myself." "Of course you mean to pay me two sous?" said SARIOI. "To be sure I do," answered the other. Whereupon he drank a glass of brandy, and handed back the copper. After plodding on another mile, SARIOI broke in with, "By Jingo, I go in for goods at half price! As a smaller costs me two sous instead of four, I'll take another!" To which TURBAN agreed at once, and again received the two sous piece. Five minutes afterward he told SARIOI that his logic was quite correct—two sous for a glass of grog was an unprecedentedly low price—took a drink, and once more returned the copper coin. And so it went on, at frequent intervals, until the pair at length reached St. Denis, congratulating themselves upon their happy discovery of brandy at half price. It is superfluous to remark that when they arrived, they were not particularly attentive to business, and were struck with the single idea that the more they drank the more money they made. Governed by this notion, they rapidly circulated the two sous piece, until the keg was at last found to be empty, whereupon TURBAN suddenly exclaimed—"Hallo, how's this? We bought six francs' worth of brandy, it's all out, and there's only two sous in the till!" "What d'ye mean by only two sous?" "That's all there is, my boy." "Then, by thunder, you've robbed the cash box!" This was the signal for a bout at fisticuffs, followed by the interference of the police, when the two partners turned their united forces against the officers, were overcome by superior numbers, captured, lodged in the nearest station house, examined the next morning, and sent to *durance vile* for eight days. No moral is necessary.—*Cor. New York Express.*

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#### VICISSITUDES OF SPECULATION.

The *New Bedford Standard* says, that seven years ago parties in that vicinity purchased 2,600 barrels of whale oil at fifty-six cents per gallon, and stored it for speculation. Subsequently 600 barrels were withdrawn by one of the owners. The balance, 2,000 barrels, has been sold within a few weeks for forty-seven cents a gallon. During the period the oil has been held, the price has been as high as eighty-two cents a gallon, but the owners held on waiting for something a little better. The total loss, counting interest, depreciation, shrinking, &c., is between \$40,000 and \$50,000.

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#### FLOWER LEAVES IN FRANCE.

In the South of France a harvest of two and-a-half million of pounds weight of flower leaves is gathered every year, and sold for about £250,000 sterling. It consists of 100,000 lbs. of leaves of the orange blossom, 500,000 lbs. of rose-leaves, 100,000 lbs. of jessamine blooms, 70,000 of violets, 65,000 of accacia buds, 30,000 of tube roses, and 5,000 of jonquil flowers.

## CURRENCY TERMS.

The origin of the word *sterling* has been explained as follows in a correspondence of the *Transcript* :—

"Your correspondent refers to the pound *sterling*, or *easterling*, which word, I believe is commonly spelled *esterling*. Some of your readers may not be aware of the origin of the word *sterling*, about which antiquarians have doubted. The word *esterlings* may be found in Spelman's glossary. The word was first applied to English pennies, in the reign of Edward I., about the year 1279. Henry, in his History of G. B., vol. vi., page 297, London, 1814, says—'In the course of this period, the silver penny is sometimes called an *esterling* or *sterling*; and good money in general is sometimes called *esterling* or *sterling* money.' It is unnecessary to mention the various conjectures of antiquaries about the origin and meaning of this appellation. The most probable meaning seems to be this:—that some artists from Germany, who were called *esterlings* from the situation of their country, had been employed in fabricating our money, which consisted chiefly of silver pennies, and that from them the penny was called an *esterling*, and our money *esterling* or *sterling* money.

"I used to be puzzled to know why a certain coin was called a *milled* dollar. Antoine Brucher, a Frenchman, invented the '*mill*' for making money, and money was first struck with it, in 1553. It was brought into England by Philip Mestzel, and Elizabeth had *milled* money struck in England, in 1562. It was used in France, till 1585, and in England, till 1572, but gave place to the cheaper expedient of the '*hammer*;' which, in 1617, gave place to the engine of Belancier; which was merged in the great improvements of Boulton and Watt, at Soho, in 1788. In 1811, the art was brought to very great perfection, at the mint in London. One of the most interesting objects, at the present day, in Philadelphia, is the whole process of coinage, from first to last, from the crude California snuff, as it enters the melting pot, till it verifies the proverb and taketh the wings of an *eagle* and flieth away.

"The dollar mark (\$) is derived from the use of the old Spanish pillar dollar, which was of very general circulation and known value, two pillars enclosed with an S became the cypher for a Spanish dollar."

## DEATH OF A FRENCH CENTENIERE.

The oldest centeniere of the French army died a few weeks since at Issoudun, aged 94. THERESE JOURDAN, born at Besancon, in 1768, was married in 1783, to JEAN PATRU, who afterwards became sergeant in the 69th brigade. She accompanied her husband in the Italian campaigns of 1796 and 1797, under General BONAPARTE. She next went to Egypt, was present at the landing of the army before Alexandria, then at the battle of the Pyramids, and at KLEIBER's victory near the ruins of Heliopolis. After her return from the East, she was present at the battles of Austerlitz, Jena, Eylau, Friedland, and the campaigns on the Elbe, the Vistula, and the Niemen. She then followed the army into Spain and Portugal, whence she returned, and, going to Germany again, witnessed the battles of Essling and Wagram. In 1812, she followed the Grand Army to Russia, and was present at the battle of Moscow, where her husband fell in storming a redoubt. She came back to France with the remnant of the army,

and took part in the campaign of 1813; was at Bautzen and Leipsic, and at Waterloo in 1815. When the army was re-organized, she was attached to the 4th Regiment of the Line, and accompanied it to Spain, under the Duke d' ANGOULEME, in 1823. From 1830 to 1834, she was in Africa. In 1859, she went there again with the depot of the 4th Regiment, and remained till 1860. Such are the services of this extraordinary woman. She went to Issoudun with the depot of the 4th, the officers of which allowed her a pension, and she had rations with the men, who absolutely idolized her. She had survived all relatives, but never wanted for friends. She retained her faculties to the last, and died without pain. The whole battalion, 600 strong, attended her funeral, and a sergeant-major pronounced an oration over her grave.

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#### HOARDING THE PRECIOUS METALS.

The *Albany Journal*, in view of the withdrawal of specie from the banks during the panic, has the following cleverly drawn hit for the "hoarders." It reminds us of a story told by a Philadelphia lawyer, of some eminence, now no more. He said the Dutch farmers in the interior of Pennsylvania were generally in the habit of hoarding their money. A farmer, who had laid by a large sum, the earnings of years, had his house broken into, and the money stolen. When asked by our friend, the lawyer, how much he lost, he said he did not know exactly, but that he had about a bushel of dollars, half a bushel of halves, and a peck of quarters, besides a considerable pile (when that bank was in its palmy days) of United States Bank bills.

"Now is the time when gold dollars are hid in old stockings. Now is the time when sixpences are tucked away in snub-nosed teapots. Now money is laid by in cupboards—for mice to nibble; thrust into corners—for thieves to rummage; carried in wallets—for pickpockets to grab at; hid behind the wood-work—for the next generation to find; and buried in the ground—to be lost and forgotten. Now men rush frantic to draw cash out of safe places, and put it into unsafe ones. Now poor families lose five per cent for the purpose of having their savings where they will keep them awake at nights. Now farmers hang up deposits in the shot pouch behind the door, housewives sew up gold pieces in their skirts, and travelers weigh themselves down with body belts of coin. Now the unprofitable servant, who hid his talent in a napkin, is canonized into a bright and shining scriptural example, while those who 'put their money to the exchangers,' are looked suspiciously upon, as rash speculators in Jewish fancy stocks. Now all money is distrusted but such as can be heard to chink. Now men privily put all their cash under lock and key, and then publicly lament that it has ceased to circulate. Now men with well filled pockets refuse either to pay their debts or to forgive their debtors. Now the butcher must wait and the baker must go unpaid, and the printer must be put off for the nineteenth time. The era of hoarding has come round again with all its blind, unreasoning fears, and all its self-imposed curses of poverty, idleness, distrust, and decay."

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#### COMMON SENSE IN A MONEY PANIC.

The *National Intelligencer*, in copying the annexed article from the *Cleveland Herald*, adds, that "circumstances familiar to almost every

reader in the country give to the subjoined remarks peculiar aptitude and force. When the ocean is in a tumult, and the storm pours out its fury, the humblest sailor in the ship feels that the safety of his fellow-voyagers is as much a matter of pride and humanity as his own. He perils all, and works manfully 'whilst a stick is left standing.' He never deserts the ship.

"Moneyed men are the veriest cravens on earth; so timid, that at the least alarm they pull their heads, turtle like, within their shells, and, snugly housed, hug their glittering treasury until all fear is removed. The consequence is, that a few days' disturbance of the monetary atmosphere brings on a perfect dearth of not only the precious metals, but of even paper money, their representative.

"Moneyed men never adopt the tactics of mutual support; as soon as a shot is fired into the flock, they scatter, each looking out for himself, each distrustful of the other, and each recognizing only the great law of selfishness, which is, to take care of number one. Courage has saved many an army even when ammunition was low, and many a foe has been scattered by one yell of defiance when there was not a cartridge left."

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#### LOOKING AHEAD.

The Philadelphia *Commercial List* says:—"We once fell in with a business man, and he was a person of wide experience, too, who said that, whatever might happen to him, he always looked sixty days *ahead*, rather than sixty days *behind*. This was sensible, and there was profound philosophy in it. For the habit of looking on the dark side of matters soon begets a despondent feeling in the heart, and disinclines a man to make any exertion at all. To look forward to better days, however, and to a turn of fortune for better times, is naturally calculated to inspire one with enthusiasm, to stimulate one with the new wine of hope. It makes all imaginable difference whether a man desponds or hopes. Hence, when a blast of trouble comes, the true way is to turn your back upon it, to refuse to have anything to do with it, to forswear all connection with its threats or promises. Look ahead, and look up! what is gone, is gone; there is no help for it. Work for better fortune, and the bad will desert you in absolute disgust at your impressibility."

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#### MONEY GOES AS IT COMES.

The Boston *Commercial Bulletin* says, very truthfully: "The young man who begins by saving a few shillings, and thriftily increases his store—every coin being a representative of good solid work, honestly and manfully done—stands a better chance to spend the last half of his life in affluence and comfort, than he who is in his haste to become rich, obtains money by dashing speculations, or the devious means which abounds in the foggy region lying between fair dealing and actual fraud. Let the young make a note of this, and see that their money comes fairly, that it may long abide with them."

## RAYMUND LULLY—POWER TO MAKE GOLD.

WILLIAM JACOB in his history of the precious metals, says of RAYMUND LULLY, that he went to England in the reign of Edward III. It will be remembered that this LULLY pretended, and was believed, to possess the power of transmuting the inferior metals into gold and silver. He seems to have been a strange compound of fanaticism and imposture. He was originally a Jew, who had been converted to Christianity and had become a Dominican friar. CREMER, abbot of Westminster, brought him to England, and introduced him to the king, for whom he agreed to exercise his science on condition of the monarch entering into a war with the Turks. The king was too much occupied with his wars in France to attack the Turks, and LULLY refusing on that account to continue his operations in making more gold, was in consequence of it imprisoned and kept in durance a long time in the Tower. It seems to have been believed by ASHMOLE, upon the testimony of NORTON and HERMES BIRD, that this man actually made gold whilst a prisoner in the Tower; and besides giving credit to this from tradition, he mentions as a corroborative proof, that the money coined from this gold had on the reverse "a cross fleury with lionceaux, and the inscription, *Jesus autem transiens per medium eorum ibat*; intimating, that as Jesus passed invisible and in a secret manner through the midst of the Pharisees, so that gold was made by an invisible and secret art amidst the ignorant." Some instances of faith in this delusive necromantic art may be traced in the statutes and other public documents almost to the first year of William and Mary, when the act of the 5th of Henry IV. was repealed which had been enacted to prevent the "craft of the multiplication of gold."

## LIBERALITY IN BUSINESS.

There is no greater mistake, says a cotemporary, that a business man can make than to be mean in his business. Always taking the half cent, and never returning a cent for the dollars he has made and is making. Such a policy is very much like the farmer's, who sows three pecks of seed when he ought to have sown five, and as a recompense for the leanness of his soul only gets ten when he might have got fifteen bushels of grain.

Everybody has heard of the proverb of "penny wise and pound foolish." A liberal expenditure in the way of business is always sure to be a capital investment. There are people in the world who are short-sighted enough to believe that their interest can be best promoted by grasping and clinging to all they can get, and never letting a cent slip through their fingers.

As a general thing, it will be found—other things being equal—that he who is the most liberal is most successful in business. Of course we do not mean it to be inferred that a man should be prodigal in his expenditures; but that he should show to his customers, if he is a trader, or to those whom he may be doing any kind of business with, that, in all his transactions, as well as social relations, he acknowledges the everlasting fact that there can be no permanent prosperity or good feeling in a community where benefits are not reciprocal.

We know of instances where traders have enjoyed the profits of hundreds of dollars' worth of trade, and yet have exhibited not the slightest disposition to reciprocate even to the smallest amount. Now, what must neces-

sarily follow from such a cause? Why, simply the loss of large profits per annum, in the loss of trade, which, under a more liberal system, might have been retained.

The practice of some men seems to be, to make as little show in the way of business as possible. Such a one, if a trader, takes no pains with the appearance of his store. Everything around him is in a worn-out, delapidated, dirty condition. To have it otherwise it would cost a dollar for whitewash, and perhaps five for painting, and a few dollars besides for cleaning up and putting things to order. And so he plods on and loses hundreds of dollars' worth of custom for the want of attention to these matters, while his more sagacious neighbor, keeping up with the times, and having an eye to appearances, does a prosperous business.

Another will spend no money in any way to make business for fear he shall not get it back again. Consequently he sends out no circulars, distributes no handbills, publishes no advertisements; but sits down croaking about the hard times—moaning over the future prospect of notes to pay, no money, and no trade; and comes out, just where he might expect to come—short, while his neighbor, following in a different track, doing all that is necessary to be done to make business, has business; isn't short, but has money to loan; and it would be just like him to get twelve per cent., perhaps more, for the use of it; and we should not blame him for so doing.

The fact is, times have changed. The manner of doing business is different now, from what it used to be. It would be just as foolish to insist upon doing business now, in the old-fashioned way, as it would be to insist upon travelling with an ox-team instead of by railroad; to get news by old-fashioned stages instead of having it brought by the lightning telegraph. The times demand men of enlarged, liberal, energetic souls—men who will keep up with the world as it goes; men of hearts, too, who not only desire to go ahead themselves, but take pleasure in seeing others succeed; and who have public spirit enough to do something for, and rejoice in the prosperity of the people.

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#### AN AUSTRIAN ANECDOTE.

The *Gazette du Danube* publishes the following anecdote:—"A naval officer, who was some time ago making an excursion in the mountain near Ischl, lost his way, and entered a cottage to ask for information. The mistress of the house offered to send her son to show him the road. The offer was accepted, and when the lad had put the officer in the right path, the latter offered some money as a reward for his services. The boy refused to accept any, and remarked that the soldiers were always short of money. The officer inquired how he came to know that, and the lad replied, 'Why because I have a brother who is a soldier, and he never has any money. This very day my mother has sold our last goose and sent him what it fetched.' Touched by this artless tale, the officer returned to the cottage, gave the good woman three times the value of her goose, and promised to take care of her son if he behaved well. It need hardly be said that the officer kept his word, for he was the Archduke Ferdinand Maxamilian."



## THE BOOK TRADE.

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*American Underwriters' Manual and Insurance Directory for 1862 and 1863.*  
New York: GRIERSON & ECCLESINE.

This work presents, in a very convenient form, a large amount of information and statistics connected with insurance affairs. It professes to be the first compilation which contains an account of all the insurance companies in the whole Union, excepting the seceding States, and must prove useful to the mercantile as well as the insurance community. In addition to an alphabetically arranged list, or directory of the officers of insurance companies in New York, the New England States, New Jersey and Pennsylvania, this manual gives a very full account of all insurance companies and agents in the Western States, some of the Southern States, and also in California, a collection of recent insurance laws and several official reports, with general statistics of great interest in connection with the growth and strength of insurance throughout the country. Merchants doing a country trade, and men in the shipping and forwarding business, will find a work of this description invaluable for reference. The compiler is JOSEPH B. ECCLESINE, Esq., the talented insurance editor of the *Wall Street Underwriter*, and having made this branch of statistics his specialty, the work is reliable and accurate in its statistics and just in its expressed opinions.

*The American Annual Cyclopædia and Register of Important Events of the Year 1861.* D. APPLETON & Co., 443 and 445 Broadway, New York.

The development of science, the geographical explorations, the ingenious and important inventions of the past year, together with biographical notices of the virtues and services of the distinguished men who closed their career in 1861, form a portion of this very valuable volume. But perhaps the most important part is the full and accurate history which it contains of the conflict in the United States during the same period. The publishers appear to have presented a truthful picture of these matters, giving, as they state in their preface, the movements of the leaders of secession, from their first acts to the close of the year, including the proceedings, step by step, in each of the Southern States until they had resolved themselves out of the Union, and their subsequent efforts; the organization of the Confederate States; the principles upon which that organization was founded; the civil and commercial regulations of the Confederacy; the movements of its Government to fill its treasury, and organize and equip vast armies; the counteracting movements of the United States; the organization of its armies, with the details of the weapons for the infantry and artillery, and for the batteries for the ships and gunboats; together with all the original documents, from the Messages of the respective Presidents; the instructions of Cabinet officers; the Messages and proclamations of Governors; the important acts of the United States and Confederate Congresses; the acts and resolutions of State Legislatures; the proclamations and orders of commanding officers; the contributions of men and money from each State, North and South; the details of every battle and skirmish involving a loss of life. So ample have been the resources from which its details have been prepared, comprising publications both North and South, that it is believed no important public measure of the Federal or Confederate Governments, or of any of the States, has been overlooked or valuable document omitted. The efforts of the Confederacy to secure the cooperation of foreign powers, and of the United States to prevent it, are summarily presented in the letters and instructions of the respective diplomatic agents. We heartily commend this volume to our readers.

THE  
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AND  
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THE  
MERCHANTS' MAGAZINE  
AND  
COMMERCIAL REVIEW.

DECEMBER, 1862.

FEDERAL FINANCES EXAMINED  
AND CONSIDERED WITH REFERENCE TO THE PRESENT ISSUES OF PAPER  
MONEY.\*

It is somewhat remarkable, yet nevertheless true, that although the United States have existed eighty years as a nation, they have never had a regular financial system for the service of the government, the wants of which have been supplied in a manner by expedients, and these have generally been of that character which, in the progress of science, the nations of the Old World have gradually abandoned. The injurious influence of indirect taxes upon productive industry, and upon the general distribution of wealth in a community, have become recognized by statesmen whose efforts have been directed to a more equitable mode, which should, in no degree, retard the stream of natural wealth as it flows from the springs of industry, but should draw from the great reservoir of accumulated capital in just proportion, the sums that are requisite for an economical administration of public affairs. Direct taxes have been found best to fulfil these conditions. In the United States no progress has been made in this direction. Although empowered by the Constitution to raise money by borrowing, or by either direct or indirect taxes, the revenues from customs duties have been the main dependence of the government for its support in peace as well as in war, and when commercial revolutions have at times caused this staff to break under it, temporary loans, make-shifts, and expedients have been resorted to until better times should come round. It is no doubt true that this want of system in the financial affairs of the Republic has been a leading cause of the present difficulties in which the country is involved. The financial question has indeed been at the bottom of all the great revolutions of modern times, and

\* We cannot by any means agree with all the conclusions and statements in this very able article. Nor do we wish the fact of our publishing any contribution, to be taken as evidence of our endorsing it. It has always been customary to open the columns of the *Merchants' Magazine* to the advocates of both sides of every commercial question, and we intend of course to continue that custom.—*Editor Merchants' Magazine.*

must continue to be a stumbling block to statesmen, until the science of taxation is so far developed that the burdens of government may fall with equal weight upon all the members of the community, and so operate as not to draw wealth from the pockets of one class into those of another, thus building up an interest dependent upon the government, at the expense of other interests, whose growing discontent will sooner or later convulse the State. The revolution in England was precipitated by the financial exactions of the crown; that of France commenced a century later, when the financial distress caused by the expensive sway of Louis XIV, aggravated by the paper money scheme of LAW, under the Regent, culminated in the corruptions of Louis XV, and in the subsequent reign burst upon the people in revolution, when a flood of paper money destroyed all that remained of credit, public and private. The attempt of England to collect revenues in the colonies was fatal to her power on this continent, and the rebel colonies depended upon paper money to carry them through the struggle. An issue of \$372,000,000 of paper notes sufficed utterly to destroy their value as money and the resources of the people, and with it the credit of the new government, which was no sooner organized than this financial question threatened it with reverse. The inability to pay the troops set them in array against the government, when the great personal influence of WASHINGTON saved the country.

The attempt to collect taxes from a people ruined by paper money, caused the rebellion of SHAY in Massachusetts. The attempt to collect the whisky tax upon a people whose sole dependence was the sale of rye whisky, caused the rebellion in Pennsylvania, which was led by ALBERT GALLATIN, afterwards Secretary of the Treasury. These and many other grave difficulties beset a government newly established over a people who had been ruined by the false paper system of finance that had been adopted. A similar system destroyed the republican government of France, and made welcome the rule of the First Consul. It is no doubt the case that the creditless government of a ruined people had but little choice in the system of finance they were to adopt. Paper money as a resource was dead. Direct taxation only produced resistance to an authority not yet established, and to which the States of Georgia and Rhode Island had not yet adhered, and Mr. MADISON held that it was a great advantage that, through the assent of the States, they were able to levy duties upon imports temporarily, as a means of paying current expenses and re-establishing public credit. The States that had been united under the confederation seceded from each other because that system did not suit them all. It was necessary that the new government should attract all back to the Union, and adopt its policy to that end. When the first session of the first Congress of the United States met in New York, March 4, 1789, the first serious business which engaged their attention were the finances. Mr. MADISON, remarking upon the claims on the government that it was necessary to meet, said:

"To do this a national revenue must be obtained; but the system must be such a one, that while it secures the object of revenue, it shall not be oppressive to our constituents." The system proposed was that which had been adopted by the Confederate Congress of 1783, which was in substance a duty of 5 per cent on imported goods, with an additional duty on some enumerated articles, among them tonnage. The debate was immediately opened upon the manner in which these duties would effect

different States. Some of the States that possessed shipping wished the rate so high as to exclude foreign tonnage; others favored a moderate duty only, and still others wanted no discrimination, but simply a revenue tax. Mr. TUCKER, of South Carolina, remarked, April 9, 1789, that in order to preserve peace and tranquility, a spirit of moderation was necessary. "All that can be expected is such a degree of accommodation as to insure the greatest degree of general good, with the least possible evil to the individuals of the political community." All the speakers agreed that this system of indirect taxes was one, even at the low rate of 5 per cent proposed, which would benefit some sections at the expense of others. Mr. MADISON contended that if the agricultural sections paid more under the system, they, being more thickly settled, stood more in need of national protection; on the other hand, that the populous sections having, before adopting the Constitution, the power to protect their interests, naturally came into the Union in the expectation that those interests should not be neglected. The debates continued on the subject of the large amounts that would be paid to enrich individuals. Mr. GOODHUE, of Massachusetts, a large shipowner, proposed a duty of 60 cents upon tonnage, which Mr. TUCKER, of South Carolina, said would amount to \$50,000 per annum in the port of Charleston; "one-third of the whole tonnage is foreign, two-thirds American. The first is all that would come into your treasury; the second goes into the pockets of individuals as an extra reward for serving us. I once more wish that gentleman will consider great duties as imposing a heavier burden upon the Southern States, as they import more, the others less, and the sum we pay towards the revenue must be in proportion to our importation." FISHER AMES, of Massachusetts, followed in the same direction. "If the revenue system should fall with oppressive weight on the people; if it shall injure some in their dearest rights, it will shake the foundation of the government."

Mr. GERRY strongly favored moderation. "The energy of your government depends upon the approbation of the people. No doubt the citizens of the United States will support the government they have adopted, so long as they approve the measures it pursues, and no longer."

It will be remarked, that at the date of this debate, there were only eleven States in the Union, and the arguments of many of the speakers were directed to such compromises as would induce a "reunion" of those States that had not yet adopted the Constitution. The system of customs duties was finally carried on a principle of compromise among all those interests, in view of the urgency of a revenue for the government, and of the great difficulty at that period of collecting any other tax. Nevertheless, the principle was fully recognized that their operation, even at the low rate of 5 per cent, was to benefit manufacturing at the expense of agricultural interests.

The operation of the customs, when trade resumed its course, and the large exports of the country to meet the famine in England and Western Europe, and to feed the armies in Spain and elsewhere, brought back large quantities of needed goods, realized a sufficient revenue to carry on the government and do something towards the discharge of its debt. There were also the internal taxes, mostly the excise upon spirits, which, in consequence of the events attending their collection, cost more than they yielded, and then gradually fell into disuse, when the uncertain yield of the

customs came to be alone the base of the Treasury. The exports of the country at the origin of the government were mostly breadstuffs of northern origin, and this continued up to the peace of 1815, from which time, with each new want of the government, higher rates were required. In 1792, General HAMILTON asked for 2½ per cent to be added to existing 5 per cent duties, to provide for the "protection of the frontiers." This he said was an important though not an excessive augmentation, and it was to be temporary only. The levy was made, but it proved not only permanent, but it was followed by other additions, until the 5 per cent of 1789 had risen to 30 per cent in 1808. In the war of 1813 the rate had risen to 60 per cent, being doubled for war purposes.

The occurrence of war, with its vast expenses, destroyed the availability of the customs, and threw the government upon new expedients. The amount of capital in the country was not great, and that portion of the country possessed of the most capital was opposed to the war—even organizing secession rather than submit to the will of the whole people as expressed in the acts of the government. Loans were indispensable, and the government was obliged to depend for them, in a good measure, upon the banks of the Middle States, which were the great reservoirs of capital. The loans were in two shapes, treasury notes and stock subscriptions. The former circulated to a considerable extent as currency, being generally taken in business transactions. The subscription of the banks to the loans of the government involved a suspension of specie payment in those sections where the government was supported. The Eastern banks did not favor this loan, and they reduced their liabilities to sustain specie payments. The taxes levied for the support of the war were not very prolific. They did not operate until 1814, and for the three years 1814-15-16, the amount collected was \$20,100,000; there was realized from loans \$113,000,000. These taxes and loans were all based upon the inconvertible bank currency, which was at a heavy discount as compared with gold. The struggle of the government was severe in order to meet its wants, but with the return of peace in 1816, the immense imports swelled the customs revenues to \$36,000,000, a point far higher than ever before. The use of paper money produced two parties—for and against specie payment. The first came forward with two significant demands: one was that the debts which had been borrowed in depreciated bank paper, should be paid in gold, and that the taxes should, in like manner, be collected in specie; also that the banks should resume, involving the necessity on the part of all individuals of paying in specie, contracts which had been made in depreciated paper. The merchandise which had been sold on credit at paper prices, were to be paid in gold. The manufacturers also demanded that their productions, which had been developed during the war, should be protected for the future in time of peace. The result of these propositions would be, that while all the debts due creditors, as well as commercial claims—as government paper bought up at low prices—would be paid at par in gold, high duties on imported goods would insure high specie prices in the future for domestic manufactures.

These results were loudly complained of by the Southern members, and the more so that Northern food and provisions had ceased to be the chief exports of the country, but that cotton, rice, and tobacco had come to be the leading staples on which the payment of imported goods depended.

It was uniformly urged that the high prices caused by the duties were taking capital from the agricultural sections and accumulating it in the manufacturing districts. "In one word," said Mr. TELFAR, in 1816, "all articles are made dear to the consumer, whether of foreign or domestic fabrication, merely that the manufacturer may derive a profit on his capital." The Southern members all declared that the effect of such a policy would be to keep the South poor, and make the North and East very rich. The system prevailed, and the rates of duties were continually increased, amid the growing discontent of the South, until in 1830, when the federal debt was nearly extinguished, the average rate of duties paid was 48 per cent, and the discontent of the South manifested itself in the nullification of 1832. This serious blow at the government caused a reversion of the system. From the peace of 1815 to 1832 the prosperity of the country had been almost uninterrupted. The revenues were ample, and a portion of the debt was annually discharged, until now it was not only closed, but a surplus of \$35,000,000 was in the Treasury. The stand taken by the South caused a compromise. The tariff was to be reduced gradually, until in 1842 it should reach 20 as a maximum tax. Unfortunately, while this compromise was adopted, there was no change in the government system of finance, which still depended on the customs solely, and liable to all the vicissitudes of commerce. One effect of the high tariff of 1828, had been an accumulation of specie in the banks, which impelled them to such a course of loans as aided in a wild speculation, which, swelling the government revenues, caused the accumulation of a surplus in the Treasury. To get rid of that surplus, \$28,000,000 was deposited with the States, when a financial revulsion burst over the world, involving such a destruction of commercial credits, as greatly reduced the imports into the United States, and deprived the government of revenue. To meet the emergency, it was compelled to issue Treasury notes, and continued to use them in aid of the Treasury during nearly seven years before the recuperative powers of the country restored the customs to the level of the public wants. This fatal necessity of depending upon customs caused a violation of the compromise of 1832, in the enactment of the tariff of 1843. Mr. CALHOUN objected to the proposed tariff, that it was worse than that of 1828. The average rate was, indeed, 10 per cent less, but the substitution of cash duties for bonds or long credit, the substitution of specific for *ad valorem* rates on articles that had fallen in value, the home valuation of goods, the arbitrary mode of collecting, and the fact that it went into operation immediately on its passage, all tended to enhance its injurious features.

He said, "I shall not dwell on the fact that it openly violates the compromise act, and the pledges given by its author and by Governor DAVIS, of Massachusetts, that if the South would adhere to the compromise while it was operating favorably for the manufacturers, they would stand by it when it came to operate favorably for the South. I dwell not on those double breaches of plighted faith, although they are of a serious character, and likely to exercise a pernicious influence over our future legislation, by preventing amicable adjustments of questions that may hereafter threaten the peace of the country."

The customs again, therefore, became the means of sustaining the Treasury down to the Mexican war, when, foreign trade not being interrupted, small loans only were requisite to meet the extra demands occa-



sioned by hostilities. The gold of California brought on a season of great prosperity, which swelled the revenues to an amount equal to the wants of the government, and enabled it to diminish its debt by purchasing the stock at a high premium. As high as 22 per cent premium was paid by the Treasury, in 1856, for some descriptions of government stock not due. In 1857 a commercial revulsion stopped imports, deprived the government of revenues, and again compelled it to issue Treasury notes.

The aggregate revenues and payments of the United States from the origin of the government down to the close of the fiscal year 1861, were as follows:

|                                      |                           |
|--------------------------------------|---------------------------|
| Customs.....                         | \$1,575,152,579 92        |
| Lands.....                           | 175,817,961 00            |
| Taxes and other receipts .....       | 95,805,322 56             |
| <b>Total revenue.....</b>            | <b>\$1,846,275,863 48</b> |
| <b>Total expenses, ordinary.....</b> | <b>1,453,790,786 00</b>   |
| <b>Excess revenue.....</b>           | <b>\$392,485,077 48</b>   |
| Total borrowed 1789 to 1861          | \$462,935,644 64          |
| Total loans paid " "                 | 781,886,875 00            |
| <b>Excess debts paid.....</b>        | <b>\$318,950,730 36</b>   |

There remained unpaid July 1, 1861, a debt of \$90,867,828, which, if it had been paid, would have raised the excess of debt payments over receipts to \$409,818,558, whence it will be observed that if the revenue had been so regular that no borrowing had at any time been necessary, the amount actually collected would have been sufficient. The government has paid back two dollars for every one borrowed, and also distributed \$28,101,644 among the States. The land revenues are more apparent than real, since the lands have cost quite as much as has been realized from them. It results, then, that the customs have paid all the debts and expenses of the government from its origin, and those customs have been imposed on goods purchased with domestic produce. Of these the records have been regularly kept only since 1821. The aggregate domestic exports from 1821 to 1861, was \$5,060,929,667. Of this amount, \$3,311,208,104 was composed of the four articles, cotton, rice, tobacco, and naval stores; \$1,102,362,404 of breadstuffs and provisions, and the remainder cotton goods and other manufactures, of which a considerable portion were of Southern origin. In the aggregate, 70 per cent was of Southern products. In the same period the quantity of goods consumed in the country was \$5,818,049,325, and the customs collected amounted to \$1,231,456,369, or 21 per cent, and being an annual average of nearly \$7 per head each person for the whole period. The larger portion of the foreign goods have been consumed at the North, but they have been paid for by the South, and that section has been reimbursed by Northern manufactures at prices enhanced by the duty on competing foreign goods.

This state of affairs caused that growing discontent against the dangers of which FISHER AMES and others cautioned the first Congress, and of which nullification in 1832, and the warnings of Mr. CALHOUN were indicative, without producing any change in the financial system.

It is no doubt true, that under the operation of these custom duties the

government has been maintained, all the expenses of four wars had been met, two empires had been purchased—Florida and Louisiana—the country sprinkled with government buildings, forts, and arsenals, a navy created and an immense stock of military supplies accumulated, while tracts of country remained in the hands of the government of almost countless value. All this had been derived from customs duties, and in a purely financial sense the results of this system were evidently gratifying. In another sense it was not so, however. The system had been a constant source of strife between political parties, and the great Southern section, which had denounced it in the beginning as sure to impoverish the South for the benefit of the North, found their discontent deeper seated as their views in that respect were more manifestly justified, and the peace of the country was threatened. It was indeed alleged by a party at the North, that the labor system of the South was the cause of the impoverishment, as if a system which had undeniably produced such vast wealth was of itself the cause of that poverty with which the South was reproached.

The outbreak of the war, involving a scale of expenditures to which the country had hitherto been a stranger, brought the government face to face with the gravest difficulties that ever before presented themselves to a government. The nation heretofore had maintained a high credit while it paid, but when it was in want of money that credit was not found to be stable. Of the individual States that composed the Union, nine had been tainted with repudiation. The consequence was, that when the Federal government, in 1842—although it had been the only government that had always paid its debt, principal and interest, in full—wanted to borrow for peace purposes, it could not get a dollar at home or abroad. It had never had any system of taxation, and it was considered a problem if the people would submit to Federal taxation. In 1861, twenty years later, a graver difficulty presented itself. The whole resources of the Treasury were customs derived from duties on goods mostly purchased with articles produced at the South, by a class of laborers which the party in power in the North, it was alleged, were determined to emancipate by force of arms—an event which would sweep away what had hitherto been the base of the government finances. It was not to be expected that the credit of the government would stand high abroad among those whose business depended upon those Southern productions, which the war was to destroy. The war also jeopardized the exertions of the government, since no one could tell how many States, or in what condition, would survive the war. Who was to repay the money asked for? These, and a multitude of other questions presented themselves to the minds of capitalists, when the results of the election of November, 1860, were followed by such a diminution of imports that the government found itself without a revenue. The effects of the commercial revulsion of 1857 had not yet passed away in June, 1860, when Congress authorized a loan of \$20,000,000 to redeem outstanding Treasury notes. Of this amount Secretary Cobb offered \$10,000,000 in October, 1860, at five per cent, and it was taken at a premium. Before it was paid, however, the results of the elections caused the bidders to decline part of the stock, and \$7,022,000 only was issued. The imports declined simultaneously, and with them customs were reduced. On the 10th of December HOWELL COBB resigned; on the 14th, Congress passed a law permitting the negotiation of \$10,000,000 Treasury notes, payable in a year, at the lowest bid. The bids were opened on

the 28th, and only \$500,000 was offered, at 12 per cent. There were offers at 36 per cent and at 24 per cent, but all over 12 per cent were rejected. With a great deal of exertion on the part of those interested in support of the government credit, \$5,000,000 was subscribed at 12 per cent, to pay the government interest due January 1, 1861. January 19, Secretary DIX negotiated \$5,000,000 more at an average of 10½ per cent.

Congress, however, continued to trifle with the financial, as with the political, condition of the country, but on the 8th of February, under pressure of daily demands, authorized a loan of \$25,000,000, to run ten to twenty years, to be sold to the highest bidder. A portion of this was negotiated at 90½ @ 96 per cent. The tariff of March 1st authorized a further loan of \$10,000,000. The advent of the new government to power being attended by apparent moderation confidence, somewhat recovered. The new Secretary of the Treasury, Mr. CHASE, was placed in power as a politician, but was devoid of all those qualifications which were so indispensable to the financial head of the nation at such a momentous crisis. He was a fair lawyer, but had never been familiar with great money transactions, the principles of financial science, or the machinery by which great operations are moved. In a quiet time, with the government in high credit and the Treasury well supplied, he might have prevented waste. He was much praised, and the public hoped much. At the close of March he put a portion of the loan on the market, and received bids at 93½ @ 94 for \$8,000,000. This was the first operation of the new Secretary, who came into power amidst general laudation, but this first transaction chilled confidence in his capacity. The offer was 3½ per cent higher than made to General DIX, and at the moment the bids were opened the government was secretly fitting out an armed expedition against Sumter and Pickens; yet, under the circumstances, the Secretary had the inconceivable fatuity to reject the offers below 94, and he obtained only \$3,099,000. When the departure of the expedition was known, the Secretary came again into the market for \$5,000,000, and got no bids at all. Money was 4 per cent, but government 6 per cent stock sold at 83, and the Secretary was helpless. This state of affairs alarmed those interested in public credit, and after much exertion \$5,000,000 of Treasury notes, receivable for customs, was placed mostly with banks and large importers, with whom the notes bearing 6 per cent interest were available for duties. The Secretary, who had thus ruined his own credit at the first start, was now entirely helpless. Congress was not to meet until July, and all his means consisted of the balance of the \$14,000,000 loan of July, 1860—these could not be sold under par, and as the market price was 84, they could not be used—the balance of the \$9,000,000 loan of February, and the \$10,000,000 authorized in March. The Secretary could do nothing with any of them. The banks and capitalists were alarmed at the condition of the public credit and the incapacity of the head of the department. The Chamber of Commerce, with numerous sub-committees, and the banks of the three cities took the matter in hand and exerted themselves to get bids for the stock to be opened May 21. The opening was put off to May 25, in order to give more time to the committees, who finally succeeded in getting bids for \$6,396,000 at 85 @ 93, and for \$2,241,000 six per cent notes at par. These sums provided for the most pressing wants of the Treasury, but all the extra wants of the government had been met by the offerings

of individual cities and States in great profusion; all these raised money easily. The Secretary of the Treasury alone was helpless and inefficient. At the close of June he came again to seek aid in Wall street, when the notes that had been issued in May at par had fallen to  $2\frac{1}{2}$  per cent discount. He could sell no more; but, as money was very plenty, he procured \$5,000,000 for sixty days on pledge of six per cent Treasury notes. This sufficed for the most pressing wants of the Treasury until Congress met. On the 4th of July, 1861, the Secretary sent in his financial statement to Congress—a very confused and unsatisfactory document. The chief point was, that there was required for the service of the year 1862 the sum of \$318,579,581. He stated that the customs would give \$57,000,000, the lands \$3,000,000, and that if \$20,000,000 should be raised either by direct or indirect taxes, or both, it would raise the income to \$80,000,000, leaving \$240,000,000 to be borrowed. He stated that he did not design to depart from the custom of the government in depending upon import duties, which, he said, would be ample as soon as peace was restored. He hinted that confiscation of enemy's property would form a revenue, and that the salaries of the government officers should be reduced 10 per cent. The value of the latter suggestion is apparent when we remember that, on an estimated expenditure of \$320,000,000, it would save perhaps \$500,000. He proposed, by way of loan, that \$100,000,000 of 3-year bonds should be issued as a loan, made popular by fixing the interest at two cents per day, and he apologized for so high a rate, although that rate was lower than he had been enabled himself to borrow. Congress showed no indisposition to borrow money, but a very great reluctance to taxes. The \$250,000,000, too, that the Secretary asked for was promptly voted on the 17th of July, and the law was amended August 5th. The two acts authorized the borrowing of \$250,000,000 in any or all of the following modes:

| Payable.                       |                     |                 |          |                           |
|--------------------------------|---------------------|-----------------|----------|---------------------------|
| 1. Bonds                       | after 20 years..... | 7               | per cent | Sell not under par.       |
| 2. " "                         | 20 " .....          | 7               | "        | Sell in Europe.           |
| 3. " "                         | 20 " .....          | 6               | "        | Sell equal to 7 per cent. |
| 4. " "                         | within 1 " .....    | 6               | "        | Not over \$20,000,000.    |
| 5. " "                         | at 3 " .....        | 7 $\frac{3}{8}$ | "        |                           |
| 6. " "                         | at 1 " .....        | 3 $\frac{1}{8}$ | "        |                           |
| 7. Notes, demand, in coin..... |                     |                 |          | Not over \$50,000,000.    |

The original bill contained a clause pledging the customs revenue to the interest on the stock. On its passage this clause was deliberately stricken out, a circumstance which destroyed all hope of a foreign loan. While this law was maturing, the Secretary had been depending upon the banks for 60-day loans on pledge of 6 per cent Treasury notes—an operation of questionable legality, since no law existed for the pledging of the government stock. The 6 per cent 1-year bonds were authorized to cover such cases. The credit of the government in such hands, while Congress declined any efficient tax law, by no means improved. A direct tax of \$30,000,000 had been proposed, but it was reduced to \$20,000,000, which would yield \$12,000,000 from the loyal States. This was passed under such circumstances as inspired no confidence, and the law was subsequently repealed. An income tax also was passed under circumstances that made its operation doubtful, and the public judgment was confirmed in the ultimate repeal of the law. Under these circumstances, when the loan law was passed the government 6

per cent stocks were selling at  $88\frac{1}{2}$ , although the whole debt then outstanding was but \$70,524,948. Inasmuch as that the law restricted the sale of the 7 per cent stock to *par*, and the exact equivalent of a 20-year 6 per cent stock was 89.32 per cent for a 7 per cent stock at *par*, or 1 per cent higher than the market price, the authority was of no use to the Secretary. It was in vain for him to ask the public to give 89 for a stock that they could buy for 88. There remained, then, of the whole list only the  $7\frac{1}{2}$  bonds and the demand notes, which were receivable for customs and payable in coin on demand. The issue of the latter, in the state of the exchanges, would, it was well known, involve an immediate suspension of specie payments of the banks and dishonor of the government. There then remained only the resource of these three-year bonds. It was evident that these could not be sold in the open market at *par* without great depression of value. The banks were therefore compelled to take them. It was in a manner a forced loan. A consultation of the bank officers of the three cities was held, Mr. Chase being present, and terms were proposed by the banks which he accepted.

The terms were these: The banks of New York, Boston and Philadelphia passed, August 19, to the credit of the government \$50,000,000, for which the banks received 3-year bonds, bearing 7.30 per cent from August 19. The money to remain with the banks until wanted for government expenses, and it was drawn at the rate of 10 per cent per week. The government was to make an appeal to the people, and appoint numerous agents to sell these bonds for the banks. If a reasonable amount was sold, the banks would take another \$50,000,000 at the expiration of 60 days, on the same terms, and still another on the 1st of December. The appeal was made to the people and the sales proceeded. On the 1st October the banks again passed to the credit of the government another installment of \$50,000,000, which was all to draw interest from the 1st, but to be drawn at the rate of 10 per cent per week. While this money was thus lying idle in the banks, the department paid out \$24,000,000 of demand notes to various creditors, and the whole of its money was expended January 1. In other words, in the 103 days from August 19 to December 1, the government drew from the banks \$100,000,000, and put out \$24,550,325 of notes, making \$124,550,325, or nearly \$1,225,000 per day, leaving at the same time very large arrears due contractors and soldiers. On these advances the banks had earned 10 per cent interest, but they were now loaded with the notes. The fact that the banks had the use of the money half the time raised the value of the transaction to them. Thus, \$50,000,000  $7\frac{1}{2}$ , bearing interest from the date of issue, gave an interest for 60 days of \$608,000; but the banks had the use of the money 30 days average before it was drawn, which was worth \$304,000 more. The Secretary, according to agreement, had made earnest appeals to the people and had appointed numbers of agents, allowing some of them small commissions, to sell these notes. The press united in a universal puff for these investments, and the result was that \$50,000,000 only had been sold outside of the banks. Of the sales so made, a large quantity were now coming back upon the market for sale by people who had bought them through patriotic motives, but who could not afford to keep them, and the price had sunk to a discount. The market for 3-year bonds was clearly dead, and the banks would now lend only on the 20-year 6 per cent bonds, which the law permitted to be issued at a rate

equal to par to 7 per cent, or 89.32 per cent. The price of 6 per cent stock in the market now was 92. The banks therefore agreed to take the 6 per cent stock at 89.32, the money to be drawn gradually, as in the case of the 7.30 bonds. For the \$50,000,000 the—

|                         |                 |
|-------------------------|-----------------|
| Treasury realized.....  | \$44,661,231 91 |
| Interest from July..... | 1,134,246 57    |
| Total.....              | \$45,795,478 48 |

The banks paid a portion of this money in 6 per cent Treasury notes on which they had loaned money to the government. Although this loan was taken November 16 by the banks, it was not until February 5 that the last instalment was paid up, and that payment was used for the interest due on 7.30 bonds taken by the banks, August 19.

The public credit was now fast sinking. The three-year bonds that the banks had taken were at 2½@3 per cent discount, and the new stock showed a declining tendency, while the foreign relations were in a very gloomy condition. Congress was now assembled, and the annual report of the Secretary was looked for with the most intense interest. At last it appeared, and was received with blank disappointment. The revenue and expenditures, as compared with the July report, were as follows:

|                | July Estimate. | Dec. Estimate. | Increase.     | Decrease.    |
|----------------|----------------|----------------|---------------|--------------|
| Expenses, 1862 | \$318,519,581  | \$543,406,422  | \$213,904,427 | .....        |
| Customs    "   | 57,000,000     | 32,198,602     | .....         | \$24,801,398 |
| Lands. ....    | 3,000,000      | 2,000,000      | .....         | 1,000,000    |

Thus, in five months these estimates of expense were raised \$214,000,000.

The July estimate of \$57,000,000 from customs was reduced to \$32,198,602. The land revenues were also reduced. Between these increased expenses and diminished revenue, the Secretary asked for more loans, and more taxes, and more paper money. He was not quite certain about the latter—it was very good and was very bad. The advantages were considerable and the evils immense. The battle, between the good principle and the bad, seemed to be drawn in the Secretary's view, and there were no results. His suggestions in relation to taxes were equally lucid, and the public gathered from the report only the facts that since July the expenses had been doubled and the revenue halved—that \$213,000,000 more was to be borrowed by July, and a further sum of \$380,000,000 must be borrowed in 1863, with no plan whatever to effect it. Out of \$179,000,000 already borrowed, the banks held \$100,000,000, and refused to take any more. From whom the \$593,000,000 of additional loans required were to be borrowed the Secretary utterly failed to point out. The effect of such a document upon the public mind is most clearly manifest in the returns of the New York banks, the specie and deposits of which were as follows:

| Date.     | Loans.        | Specie.      | Weekly Decrease. | Deposits.     | Weekly Decrease. |
|-----------|---------------|--------------|------------------|---------------|------------------|
| Dec. 7..  | \$159,793,953 | \$42,318,610 | .....            | \$133,618,787 | .....            |
| Dec. 14.. | 157,647,702   | 39,435,478   | \$2,883,182      | 129,379,060   | \$4,239,727      |
| Dec. 21.. | 155,784,230   | 36,813,369   | 2,622,109        | 124,897,534   | 4,481,526        |
| Dec. 28.. | 154,756,318   | 29,357,712   | 7,455,657        | 116,471,931   | 8,425,603        |
| Jan. 4..  | 154,321,653   | 23,983,873   | 5,373,834        | 111,789,233   | 4,682,698        |

The public drew \$18,000,000 in gold from the banks in four weeks, and those institutions closed their specie vaults, in all probability not soon to open them again for the use of the public.

The Secretary, in his report, had revised his estimates from July, and stated the amount to be borrowed to the close of the year at \$213,904,427. This was in addition to the amounts authorized, but not yet emitted, and also to the \$20,000,000 that he proposed to get from the direct tax. The Secretary had absolutely no plan to propose for the realization of these loans, except paper money. For this he pointed out two methods. One was for the government to issue the notes directly, and the other to issue them to the banks in exchange for United States stock. His reason for this was, that all the banks in the Union, by issuing \$200,000,000 of circulation, borrow so much of the people *without interest*, and he thought the government should assume the right to do so. The head of the Treasury seems never to have had a glimpse of the truth that the circulation of the banks depended upon its convertibility, which depended, in its turn, upon the soundness of their mode of doing business. It is impossible for the government to issue paper money and keep in convertible, because it has no means of making capital flow into its coffers when needed, such as the banks have in their line of discounts. The moment paper is inconvertible it depreciates and prices rise. This rise in prices forms a fearful tax upon the daily labor of the people, whom the Secretary cajoles with the idea that he is borrowing without interest. Notwithstanding that these were the only plans pointed out by the Secretary to raise money, he stated, however, that the plan was not without serious inconveniences and hazards. "The temptation, especially great in times of pressure and danger, to issue notes without adequate provision for redemption; the ever-present liability to be called on for redemption beyond means, however carefully provided and managed; the hazard of panics, precipitating demands for coin, concentrated on a few points and a single fund; the risk of a depreciated, depreciating, and finally worthless paper money; the immeasurable evils of dishonored public faith and national bankruptcy; all these are possible consequences of the adoption of a system of government circulation. It may be said, and perhaps truly, that they are less deplorable than those of an irredeemable bank circulation. Without entering into that comparison, the Secretary contents himself with observing that, in his judgment, these possible disasters so far outweigh the probable benefits of the plan that he feels himself constrained to forbear recommending its adoption." The banks having failed, the question of currency became a tangled one. Their notes still continued "the currency," but they were 3 per cent discount for gold, and the new government notes were  $3\frac{1}{2}$  discount, or  $\frac{1}{2}$  discount for bank notes, and all government paper was rapidly depreciating. Congress, therefore, approached the subject of loans with great hesitation. Various bills were before Congress, but it was not until February 12, that a new issue of \$10,000,000 demand notes was authorized. At the same time the Secretary assumed the right, February 8, to receive deposits from the public, and allow 5 per cent interest therefor. This was at first not very successful, and the pressure upon Congress from the Treasury wants produced a series of laws passed under pressure. That of February 25, of March 1, and March 15, authorized the issue of \$150,000,000 of paper money, or \$90,000,000 in addition to the old issues, of denominations not less than \$5, to be a legal tender for all dues and payments except customs duties and interest on the public debt, to be fundable into a 6 per cent stock, redeemable at the pleasure of the government, from 5 to 20 years. The amount of this stock authorized was \$500,000,000, and the Secretary was author-

ized to sell it at market rates. This, equally with all other government paper, to be exempt from State taxation. The Secretary was authorized to receive deposits at 5 per cent to the extent of \$25,000,000. All duties to be paid in coin—all interest on the public debt to be paid in coin. By the act of March the Secretary could issue without limit certificates bearing 6 per cent interest, payable in one year, to creditors whose accounts were audited. By the act of March 16, this was extended to the checks of disbursing officers, and the limit to which deposits might be received was extended to \$50,000,000, and the \$60,000,000 paper money issued by the acts of July 17 and February 12 were made a legal tender. Here, then, the whole paper system was inaugurated. The Treasury had become a bank of deposit and of circulation for irredeemable paper money, and could issue one-year certificates, answering to old United States Bank "post notes," without stint or limit, and could issue, at any price, \$500,000,000 of 6 per cent stock redeemable in 5 to 20 years. The holders of the old stocks, of the \$50,000,000 of 6 per cent stock, taken in December, and of the \$100,000,000 of 7 $\frac{1}{2}$  bonds, who had taken those securities on the faith of the law which prohibited the sale by the government of 6 per cents at less than 89.32 per cent, now found the Secretary authorized to issue \$500,000,000 of 6 per cents at any price. The exercise of the authority on his part would involve a great depreciation of values. There were outstanding Treasury notes and demand notes to the amount of \$78,000,000 receivable by law for customs. This amount would absorb all the customs as estimated by the Secretary for two years. Yet he was bound to pay the interest on the public debt in coin! There was no way of getting this but by buying it. The government therefore was a buyer of gold at the rate of \$18,000,000 per annum, as the debt then stood. The demand notes had been issued, payable in coin at the national Treasuries, but the first so presented were dishonored and none were ever paid. The new issue was not yet ready, and the Secretary was constrained to pay out the 7 $\frac{1}{2}$  bonds until they fell to 4 per cent discount. This alarmed the banks, who held \$100,000,000 of them. The department then paid out the 1-year certificates until they fell to 4 per cent discount. The disbursing officers' checks were then selling at 3 $\frac{1}{2}$  discount. The Secretary then redeemed 20 per cent of the amount in hands of original holders in order to support their value. This issue was then stopped, and the money received on deposits was depended upon until April, when the new demand notes were ready, and they were poured out freely with the following effects?

|          | Treasury payments. | Bank deposits. | U. S. 6's.        | Stocks<br>7.30    | 1-year.           | Gold,<br>prem.  | Money<br>at call.   |
|----------|--------------------|----------------|-------------------|-------------------|-------------------|-----------------|---------------------|
| April 5, | \$9,742,133 09     | \$94,082,625   | 92 $\frac{1}{2}$  | 99 $\frac{1}{2}$  | 96                | 1               | 5 $\frac{1}{2}$ a 6 |
| 12,      | 4,643,831 28       | 93,759,068     | 93 $\frac{1}{2}$  | 100               | 96 $\frac{1}{2}$  | 1 $\frac{1}{2}$ | .....               |
| 19,      | 12,531,675 65      | 95,179,340     | 94 $\frac{1}{2}$  | 100               | 97                | 2               | .....               |
| 26,      | 24,723,223 29      | 101,897,435    | 96                | 101 $\frac{1}{2}$ | 99 $\frac{1}{2}$  | 1 $\frac{1}{2}$ | 5 a 6               |
| May 8,   | 22,747,941 89      | 109,634,535    | 99                | 103               | 99 $\frac{1}{2}$  | 2 $\frac{1}{2}$ | 4 $\frac{1}{2}$ a 5 |
| 10,      | 17,137,322 00      | 115,559,246    | 103               | 104               | 99 $\frac{1}{2}$  | 3 $\frac{1}{2}$ | 4 a 5               |
| 17,      | 9,835,736 59       | 120,008,929    | 105               | 105               | 100 $\frac{1}{2}$ | 3 $\frac{1}{2}$ | 4 a 5               |
| 24,      | 10,445,006 67      | 122,602,864    | 104 $\frac{1}{2}$ | 105               | 100               | 4 $\frac{1}{2}$ | 3 a 4 $\frac{1}{2}$ |

The contractors and other creditors of the government had been borrowers at bank. When they received payment in large Treasury notes they turned them over to the banks, who deposited them with the Treasury at 5 per cent interest. The notes thus went from the government to its creditors, from them to the banks, and from the banks back to the Treasury.



With this flow of money its price in the open market fell and the prices of gold and stocks rose. Very soon the limit of \$50,000,000 of deposits was full and the \$90,000,000 of new notes exhausted. The Secretary then offered to fund the notes in the new 5-20 stock, but obtained only \$2,669,000. The price of gold had now risen to  $3\frac{1}{2}$  per cent, and the July interest on the public stock, due in July, was to be paid in gold. To obtain the gold he exchanged \$6,000,000 of  $7\frac{1}{8}$  bonds for gold at par. It is to be observed that the banks were the chief owners of the interest to be paid. When they gave the gold for the bonds they got the gold back. The result was the same as taking 3-year bonds, worth  $3\frac{1}{2}$  per cent premium in the market, for their interest. All these operations left the government debt, at the close of May, as follows, as per official reports:

|                             | UNITED STATES DEBT. |               |              |               |
|-----------------------------|---------------------|---------------|--------------|---------------|
|                             | Dec. 1, 1861.       | May 29, 1862. | Decrease.    | Increase.     |
| Old debt.....               | \$70,104,955        | \$70,104,955  | .....        | .....         |
| Treasury notes.....         | 22,464,761          | 3,382,161     | 19,082,600   | .....         |
| Three-year bonds.....       | 100,000,000         | 120,528,450   | .....        | 20,528,450    |
| Twenty-year bonds.....      | 50,000,000          | 50,000,000    | .....        | .....         |
| United States notes.....    | 24,550,325          | 145,880,000   | .....        | 121,329,675   |
| Oregon and Texas debt.....  | 419,992             | 878,450       | .....        | 458,458       |
| One-year certificates.....  | .....               | 47,199,000    | .....        | 47,199,000    |
| Five-twenty-year bonds..... | .....               | 2,699,400     | .....        | 2,699,400     |
| Deposits.....               | .....               | 50,778,566    | .....        | 50,778,566    |
| Total.....                  | \$267,540,035       | \$491,448,982 | \$19,082,600 | \$242,988,549 |

Now, it will be observed, that the Secretary's estimate of \$213,000,000 to be borrowed in six months, proved to be nearly \$243,000,000 in five months, and this was nearly all effected in circulating notes, deposits, borrowed, and 1-year certificates. The deposits are payable on demand, and the 1-year certificates only throw the debt ahead one year, at large interest, making his position still worse. The wants of the department were now again very pressing, and the Secretary came forward with a demand for \$150,000,000 more paper money. This authority was granted, as also the right to issue stamps as currency, to be payable for dues to the United States under \$5. The issue of the paper money had the usual effect upon all prices—gold rose rapidly to 20 per cent premium for paper, or, in other words, government paper was at a discount of 17 per cent for the constitutional currency. The August interest on the 3-year bonds was now nearly due, and the government was in want of the gold. To get it, the department offered to take gold on deposit, returnable in kind, and allow 4 per cent interest. This at once inaugurated a gold speculation, since dealers would draw interests by holding it, and would have the government responsible for its return. The result was a rise of gold to 39 per cent, or a fall of paper to 28 per cent discount. This state of affairs so alarmed the Secretary, that he sent his assistant to New York to ask the bankers not to lend on gold, and the Board of Bankers not to deal in it. CANUTE ordered the sea not to rise, but Mr. CHASE ordered the people not to believe that it was rising. With the rise in the price of gold, all commodities rose in value, following the natural law of finance. This rise in values was naturally in the operations of trade, represented by larger figures, as thus in April, a bale of cotton was worth \$115, in October \$276. At the former period a check for 1,000 bales sold, was \$115,000 deposited, at the latter period it was \$276,000. In March

100 bags of coffee was worth \$1,900, in October \$3,000, measured in paper. All business indicated a similar change. Hence the bank deposits, which were \$93,000,000 in April, were \$160,000,000 in October. These figures represented no more business and no more wealth than before; they simply indicated that there was more depreciated paper afloat. The prices of stocks had undergone a similar change, except for United States stocks, and the banks of New York city, which held \$40,000,000 in June, held \$80,000,000 in September. Under these influences all prices had risen, while incomes and wages remained the same. The expenses of every individual had been increased 30 per cent, while his income was no greater. This fact became manifest to a large portion of the people in an unmistakable manner. The Irish population has always been in the habit of remitting a portion of their wages to their friends in Ireland, in small sums of £1 and £2. The aggregate has reached \$5,000,000 per annum. The usual rate for the small bills was \$5 per £. With the flood of paper, the cost rose until it required \$14 to remit £2. To remit the usual \$5,000,000 would require \$7,000,000, a tax of \$2,000,000. The tax was palpable and apparent to all remitters. Food, fuel, and raiment all were taxed in a similar ratio, through the influence of the paper money. If the articles consumed by 20,000,000 people reach \$50 each per annum, then, in the same ratio, \$400,000,000 tax is imposed upon the people by the use of this \$300,000,000 of paper, which Mr. CHASE boasts is borrowed free of interest.

The soldiers are not exempt from this operation. The pay of the army is \$10,000,000 per month. For this sum, the soldiers and their families can now buy no more goods than they could last year for \$8,000,000. Thus, at the present rates, \$2,000,000 per month has been deducted from the soldiers pay. The contractors evade the loss by demanding extra allowances, but these increase the expenses of the government in a ratio proportioned to the depreciation of paper. Thus, the last official statement of the government expenses, was for the quarter to June 30, 1862, and the sum was \$191,000,000. The whole expenditure for the year was \$583,885,247. A rise of 30 per cent in the prices of the same articles which the government purchased last year will give, therefore, an increased expense of \$175,000,000, arising solely from depreciated paper. If the tax law which passed at the last session, gives the amount estimated from it, it will not cover this increased cost from rise in prices. Take the single case of a foreign minister—say CASSIUS M. CLAY to Russia. His pay is \$18,000, but exchange is now 35 per cent higher than last year, hence the government must give \$24,300 in order that the minister may get his \$18,000, and there is no appropriation by Congress for that outlay. There are, moreover, 500,000 more troops afoot this year than last, the materials required are therefore doubled in quantity, and at paper prices, no system of taxation can overtake the depreciation of the paper, "which makes the meat it feeds on."

It is obvious that the only safe path for the government, when this war broke out, was to throw itself upon the patriotism of the people that was so abundantly manifest, avail itself of the capital then freely offered, and by an honest representation of all the facts, raise public confidence, and come to the people for the amount of taxes required by the exigencies of the case. Such a course would have commanded the confidence of capitalists, and the government would have been able to borrow at the lowest market rates, not only at home but abroad.

**THE ADVANCED VALUE OF GOLD.****LEGAL-TENDER NOTES, TAXATION, AND NATIONAL DEBT INVESTIGATED  
IMPARTIALLY.****BY A. B. JOHNSON.**  

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**GOVERNMENT LOANS INCREASE A NATION'S CAPITAL TO THE AMOUNT OF  
THE LOANS.**

THE principle above announced was strikingly manifested when the debt of our revolution was consolidated into public stock. The debt was of doubtful value but the stock into which it became consolidated, was equivalent, in its commercial and industrial effect, to a like amount of gold and silver, and every branch of business felt the new capital, and expanded accordingly. A like result attends measurably, every new issue of government stock. The stock requires for its continued vitality, that the government shall annually exact from the people, by taxes, the interest which is payable on the stock; and this exaction constitutes the only practical difference between stock and gold; consequently, the annual benefit or injury which a country will sustain by reason of such a stock, will depend on whether the benefit is more or less than the interest abstracted annually from the country in the taxes which the stock occasions. In this particular, government stocks are not essentially different from bank notes, for all bank notes represent the promissory notes of some borrower who pays interest on the bank notes and who collects from the public, in the way of profits, the interest which he pays the banks. We know that capital is ordinarily borrowed with avidity, and interest paid thereon as a means of pecuniary gain to the borrower, and hence we may well conclude that the aggregate which the public gain, by means of capital created by government loans, exceeds the annual taxes necessary for the continued vitality of the government debt. But this fundamental fact rests on more than the inference just adduced; it being seen practically in the increased activity and general prosperity which always attends what is technically termed an inflation of the currency of a country, the inflation being only a consequence of the ability of all men to obtain loans to the extent that good security can be given therefor. No limit, indeed, but the limit of capital obtainable, exists to the industrial operations of any country. As a general rule, every man is active to the extent of the capital he can command, and the activity is induced by its expected pecuniary productiveness to the actor. The only evils attendant on currency inflations are the uncertainty and usual briefness of their continuance; but such evils are not attendant on increased capital by government loans, they being of permanent duration. The commercial vigor of Great Britain is a living exponent of the effect of great capital on the creative energies of a people, and produced, to a given extent in Great Britain, mainly by a national debt, the largest ever created; and which, at every step of its creation, was deemed, by superficial thinkers, a precursor and element of the national ruin. The general benefit resulting to individuals from a national debt, is analogous to the well understood benefits to every

business man, of residing in a rich city ; the fortune to which any man can attain being usually regulated by the wealth of his locality ; while the great expense in rent, food and labor, in cities are a tax that every resident willingly pays, for the advantage of residing in the neighborhood of accumulated capital.

#### TAXES TO SUPPLY THE EXPENSES OF WAR ARE IMPOVERISHING.

The taxes requisite to a continued vitality of national loans, are therefore more than repaid by the aggregate lucrativeness of the capital which loans create ; but when taxes are levied to supply funds with which to conduct a war, such taxes constitute a pecuniary evil to the tax payers, with no resulting pecuniary benefit. Nations who conduct wars by taxation, instead of loans, are, of necessity impoverished thereby ; and the like may be said of any portion of war expenses liquidated by taxation. Taxes should never be levied for more than the least sum sufficient to pay interest on a public debt ; consequently, the lower rate of interest at which money can be borrowed, the less will be subtracted from the benefit of the increased capital produced by any loan. Why, then, tax at all ? Why not pay the interest of a public debt, by annually increasing the public debt, and thus enjoy the benefit of the debt, as capital, without any countervailing drawback of taxation ? An answer to those questions is necessary to a correct understanding of the foregoing arguments : Government stocks possess the nature of capital to the extent only of their market price, and the price will be regulated daily by the ordinary principle of the daily supply and demand ; hence, as you increase the supply of any stocks, you diminish, ordinarily their price. If, therefore, government habitually provided, by new loans, for the payment of interest on its public debt, the market value of the whole existing public debt might by every such new loan, become diminished to an amount even exceeding the periodical increase ; and thus the holders of the old stock would, in effect, receive no interest thereon. Public stocks are always owned, subject to a fluctuation in market price, consequent to the creation of new governmental loans, or other causes ; but not consequent to a creation of new loans, to pay accrued interest on the existing debt ; a tacit understanding to the contrary arising from usage, being always understood.

We may usefully add, here, that, though stocks usually decrease in market price by every additional creation of them, the decrease is not necessarily of long duration, the public accommodating itself ultimately to any quantity that is brought into existence, of any object of human desire, so that a permanent surplus of any fixed quantity is impossible. Nature is said to abhor a vacuum, and we may add, it abhors a surplus, and struggles against both with equal persistency and success. Still, a continuously increasing production of any commodity, may keep it constantly in advance of the present demand therefor ; and the price thereof will diminish, temporarily, at any given time, in proportion to the excess of the supply at the time, over the demand.

#### TAXES FOR THE CREATION OF A SINKING FUND, ARE MORE INJURIOUS TO A PEOPLE, THAN TAXATION FOR ANY OTHER OBJECT.

The taxes a man pays towards the interest on government loans, he ordinarily is compensated for, by the increase of the national capital which the loans produce, as we have already shown ; but the taxes which he pays

towards a sinking fund, are injurious, not only in themselves, but in diminishing the national capital. Only one mitigation exists to such injuriousness, and it arises from the increased value that may ensue in the aggregate of the public stocks, that remains unliquidated. We saw an example of this, when President JACKSON voluntarily extinguished, by payment, the 3 per cent. United States stocks of the revolutionary debt. They gradually advanced to par, from being 30 or 40 per cent. below par; but the rise was partly attributable to the known approach of a speedy liquidation of the whole at par. Still, the principle of the rise on that occasion, operates, to some extent generally, and to the extent of its operation, tax payers will be injured, by a sinking fund, to the amount only of their taxes, without any additional injury from a diminution of the national capital.

**THE REPUDIATION OF A NATIONAL DEBT INJURES TAX PAYERS MORE  
THAN IT BENEFITS THEM.**

From the foregoing principles, we may understand the effect of a repudiation of any national debt. Repudiation relieves tax payers from the payment of the tax necessary to the vitality of the repudiated debt, but it deprives them of the capital which a national debt creates, and of its benefits which greatly exceed, to almost every man, the evil of his taxation. When our revolutionary debt was funded, the operation was the opposite of repudiation, by reviving a debt which was practically dead; and we know that the resuscitated debt invigorated all the productive energies of the country, and occasioned its first great start in almost universal prosperity. The larger a debt, therefore, of any nation, the greater would become the pecuniary evils of its expunction; though no financial fallacy is more prevalent than a belief that the larger a debt, the greater is the pecuniary motive for its repudiation. If all the public creditors of Great Britain would imitate the mistaken patriotism of the large creditor of the Emperor Charles the Fifth, who warmed the Emperor's chamber by a fire made of the Emperor's bonds, and thus annulled the public debt represented thereby, the British Empire, from being rich and powerful, would dwindle into comparative poverty and imbecility.

**WHEN WARS ARE PROSECUTED BY THE PROCEEDS OF LOANS, THE NATIONAL CAPITAL WHICH WAR DESTROYS, IS, ORDINARILY, MORE THAN  
EQUALIZED BY THE CAPITAL WHICH THE WAR CREATES.**

Why war disbursements, liquidated by the creation of a public debt should increase a nation's capital, is not obvious. The government receives from its citizens an amount of specie or other valuables, equal only to the public stock given therefor; hence the national capital seems neither increased nor diminished by the operation; and especially when the government employs the loans to subsidise foreign governments, as Great Britain has frequently practised, or to purchase munitions of war, which perish on the use thereof, as every government practises. In all such exceptional cases, the national capital will truly neither be increased nor diminished by the loans; and as the loans will require for their continual vitality an annual tax, the tax will be an evil with no corresponding benefit. The same principle applies, ratably, to the wages in money, food and clothing, paid, by government, to the soldiers which any war employs; for, had the soldiers remained in peaceful avocations, they would have created as much capital as they receive from government; but here commences a

system which modifies the above calculation. The men who constitute an army are, to some extent drones in private life, and produce much less in the aggregate than they receive from the government in pay, subsistence and clothing; and which receipt from government, being represented by public stocks, augments the national capital to a greater extent than the capital would have been augmented by the soldiers in their civil capacity. This is one element of the seeming practical paradox, that modern wars, instead of impoverishing a country, increase its wealth. And though the munitions of war that are consumed, and the subsistence, clothing, &c., of the troops, would seem to be only compensated for as capital destroyed, by the capital created and paid therefor in public stocks; yet, by the stimulated activity that is evoked by the war consumptions of government, more capital is manufactured and produced than in times of peace. The destruction of capital occasioned by the conflagration of Moscow aroused a creative activity in Russia, which not only soon compensated for the destroyed capital, but it has continued ever since in active operation.

To construct an accurate balance between the capital destroyed by war in any nation, and the capital gained thereby, is however, not the intention of the foregoing remarks. They are only suggestions to establish the following, four general principles: First, that where war consumptions are represented by public stocks, the national capital continues for all commercial purposes, unimpaired by the war. Second, that the only practical difference, as capital, between public stocks and gold, is the taxes that stock requires for its continued vitality. Third, that public stock as capital, is annually productive of more wealth to a people than the amount of interest levied annually from the people in taxation. And fourth, that, as a nation's capital is annually augmented, in war, by the creation of a national debt, and otherwise, to a greater aggregate than the national capital would have attained, had the nation remained in peace, the augmented capital usually produces a pecuniary productiveness sufficient to counterbalance in profit, to the community, generally, the pecuniary evil of paying taxes on the portion of stock which represents capital that the war consumed. The four enumerated principles operate beneficially to many persons whom nearly every man may designate around him; but the generality of a like favorable operation must necessarily remain a matter of speculation, especially as taxes constitute an evil that every man feels, while the compensating benefit is discoverable only indirectly. Great Britain, we know, has grown rich, despite a taxation that, according to most theories, should have made it poor. Every nation contains some persons that can be benefited by no state of the country. Men of fixed incomes, and men who abstract themselves from all surrounding activities, and men of no enterprise, while they must be injured by a compulsory taxation, cannot be benefited by agencies which they are not compelled to employ, and which they will not adopt voluntarily.

The foregoing consideration of the pecuniary results of war omits any calculation of the loss which a national capital sustains, by the death of capital producers; and in that cold character alone, political economy considers the soldiers who die in battle. From this source the loss of national capital is less than may be supposed, experience testifying that the population of a country is not much diminished by war. We are prone to suppose that every man slain in battle is an unnatural diminution of a nation's population, while the most which can be truly said is, that the death only

anticipates by usually a brief time, the natural death that is the fate of all men.

**LEGAL TENDER NOTES MUST CONTINUE AS VALUABLE ULTIMATELY, AS GOLD AND SILVER TO THE EXTENT OF THE DEBTS THE NOTES CAN LIQUIDATE.**

The notes, as legal tender, constitute, for all existing debts, an equivalent to gold and silver, for an amount that we know is far greater, in the aggregate, than all the notes which the government has yet created, and the volume of indebtedness being ordinarily renewed daily, to the extent of the day's liquidation, we can hardly conjecture any limit to the amount of such notes, for which an ultimate specie use will not exist. The French assignats, and our own former Continental money, became worthless, because neither France, nor our old Confederation, was commercial enough to afford existing debts of a sufficient aggregate to give a liquidating use to all the assignats and Continental paper that the exigency of the government created.

But though our legal tender notes are in ultimate value equal to specie, they are greatly depreciated from the par standard of gold and silver; the liquidating specie use of the notes on any present day, being insufficient to employ all the notes that are available for such use on the given day; hence, like all other surplus things, the notes decline in present value in a degree proportioned to their surplusage. When banks paid specie for their bank notes, an unfortunate bank would occasionally suspend payments. If it held discounted notes of solvent debtors, and was willing to receive payment thereof in its own bank notes, the bank notes would not depreciate in value so long as the amount of them, collectable daily, was not in excess of the amount required daily by the bank's debtors; but if the bank notes outstanding were daily in excess of the daily use thereof, every holder would make some concession in price of his bank notes, to induce the bank's debtors to take them; and the market value of the bank notes would depreciate daily in proportion to the existing daily surplusage. The same principle is operative in our government's treasury notes that are receivable, as gold, for custom duties. The amount daily procurable is in excess of the daily dutiable payments, and the price of the notes recedes from gold in proportion to the surplus. A holder of them who knows he will need them in payment of duties some weeks or months hence, will not value them in their present value to him equivalent to gold; hence, if government should to-day issue a notice that the legal tender notes, shall be hereafter receivable for duties as gold, the notice would not make the notes equal in value to even the present dutiable treasury notes. To become equal in present value to gold, any paper money must possess a present use that it and gold can alone supply. In every general suspension of specie payments by banks, as at present, bank notes never have kept, and never can keep, a par value with gold; and the depreciation of the bank notes is wholly irrespective of any doubt of the ultimate specie redemption of the notes.

**LEGAL TENDER NOTES MUST CONTINUE TO POSSESS A PRESENT VALUE  
EQUAL TO OUR BANK NOTES.**

Legal tender notes are rather more desirable than bank notes in some uses which the bank notes cannot; while there are no uses which the legal tender notes cannot

this relative value ever be changed to the disadvantage of the legal tender notes, the banks being compelled to receive the tender notes in all payments due to the banks, and hence, are indirectly compelled to receive them on deposit, as money; for, should the banks refuse to receive, on deposit, legal tender notes, as was once mooted, all bank debts would be paid in legal tender notes; and thus, by the amount of tender notes forced on them, the banks would lose all the proposed advantages of a discrimination between the two currencies. Legal tender notes are thus assured permanently in every locality of the Union, a value equal to bank notes; and the present depreciation of the legal tender notes, as compared with gold, is a common depreciation of paper money, and not invidiously peculiar to the government currency.

**BANK SUSPENSIONS CREATE ARTIFICIALLY A RISE IN THE VALUE OF SPECIE.**

A belief is common that every possessor of paper money, legal tender notes included, is injured by the depreciation of the paper, to the extent of the premium that is paid for gold. This estimate is essentially fallacious. Whenever banks have suspended specie payments, specie has immediately advanced in value over the bank paper. The reason for such advance is obvious enough when we reflect, that the banks are almost the sole possessors of the specie of a country. Whoever receives specie, forthwith deposits it in some bank, relying that he can obtain any desired quantity when he applies therefor, with the paper of the bank; hence, when all banks suspend specie payments, the whole existing specie of the country is forthwith excluded from public use, arbitrarily imprisoned in the banks' vaults; and however much the actual need of specie is diminished by its being no longer required by banks as a basis of their issues of notes, yet the remaining uses for gold, the dutiable uses, the exportable uses, the hordable and mechanical uses cannot be supplied; and therefore a rise in price must ensue, precisely as coffee, tea or sugar would rise in price, if all the wholesale dealers therein would suddenly refuse to part with any of the articles, but doggedly keep them locked up in their warehouses. And especially must we remember that usually banks suspend specie payments greatly in advance of the exhaustion thereof from their possession. The banks in New York City possess, at this moment, nearly forty millions of specie, chiefly gold; and a like plethora exists in all the city banks of the Union; and measurably in country banks. Need we wonder, therefore, that this open monopoly of the precious metals, this abstraction of them from all customary uses therefor, should create, in the exchangeable value of specie, a rise over paper independent of any depreciation of the paper money? Our wonder may rather be that gold and silver have not appreciated further, and doubtless they would have appreciated greatly further, had not the dutiable uses of specie been supplied by the thirty millions, more or less, of outstanding treasury notes which were procurable by the public, and by the sums in gold which have been disbursed by the government, in payment of interest on the public debt.

**THE EQUIVALENCE BETWEEN PAPER MONEY AND SPECIE, IS ALWAYS PRODUCED AND PRESERVED ARTIFICIALLY ONLY.**

During specie payments, bank notes are governed in quantity by the amount which can be paid on demand in specie; hence, when any exigencies diminish the specie of the banks; or any exigencies have caused a greater



issue of bank notes than the specie of the banks can surely redeem, every bank hastens to diminish its outstanding bank notes, by diminishing its outstanding debts; that the equilibrium may be restored between the amount of the circulating medium, including bank deposits, and the obtainable gold that is sufficient to liquidate, on demand, the bank notes, &c., that are daily bought for redemption. Bank notes and gold are thus artificially made to occupy an equal value. But a man who estimates as a loss the present difference between the value of his paper money and the value of an equal number of dollars in gold, subjects himself to a further fallacy by reason that the paper dollars in his possession are probably much more numerous than the number would have been had gold and paper continued artificial equivalents of each other.

#### MONEY ITSELF POSSESSES NO UNVARIABLE VALUE.

When specie and paper are at par value with each other, the supply of money is often much less than the demand; but of its consequent rise in value, no standard measure exists, except a simultaneous depreciation in the market price of houses, lands, and all other commodities: and when specie and paper are at par value with each other, and an excess of the supply exists over the demand, no measure exists of the consequent depreciation in value of money, except a simultaneous rise in the price of all saleable commodities. In neither of the above alternatives are we accustomed to say that money is depreciated in value, or appreciated, though the said cases are no way essentially different from what paper disconnected from gold is now evincing. All we can properly say now is that relatively to each other, paper exists in excess of the demand, and gold exists short of the demand. Abstractly considered, the uses for gold have diminished, by reason that it is no longer used as money, nor as a basis of our paper currency; and therefore the supply of gold should properly exist in excess of the other demands therefor, and its exchangeable value should fall; but it seems to rise in value, a rise occasioned in no small degree artificially by its engrossment in banks.

Having thus considered the natural laws of monetary affairs, we may examine what may be done, artificially, to make a government's legal tender notes more nearly equal in value to gold than they are at present, government being said to desire such an equivalency. It may be accomplished equally well, by either diminishing the quantity in existence of the notes, or increasing the uses therefor. To increase the use, no measure is so available as to induce the holders to fund the notes in some permanent stock of the United States. The notes are now fundable in a five years, 6 per cent. stock, which practically is found an insufficient inducement to accomplish the desired end. The 20 years 6 per cent. stocks are, on the contrary, selling at a premium, but as government will not issue those stocks for legal tender notes, the preference evinced by the public for the long stocks, is not available to diminish the existing surplus of the legal notes. A general privilege to convert the tender notes into the long stocks might operate measurably to overcome the present excess of par value, which the long stocks now sustain; yet the existing premium on the 20 years stock, shows the direction in which a new demand may be created for the legal tender notes; and the like may be said of any new stock more lucrative than 6 per cent., or longer than 20 years, that may be deemed proper for the given end. The existing convertibility of the tender notes into only a five years stock, has no effect but to protect from depreciation

the existing 20 years stock, and thus to benefit the holders thereof; but how far a motive so personal and limited in its operation, should control the government, the government alone can decide.

LEGAL TENDER NOTES, BY BEARING NO INTEREST, CREATE A CAPITAL THAT MUST SEEK SOME PRODUCTIVE INVESTMENT.

The legal tender notes originated in a belief that the notes would supersede bank notes, and hence be needed as currency; but every bank prefers to issue its own paper, and to use the legal tender notes for other purposes; and as the public seeks no conversion of bank paper into tender notes, bank notes, answering, practically, all the purposes which the legal tender notes subserve, the whole mass of tender notes only augments the existing surplusage of capital that is seeking a profitable investment. The result of the surplusage is seen in the unprecedented magnitude of the deposits of banks everywhere, and in the stimulated and unhealthy competition that exists for all interest-bearing stocks, and, as usual, by sympathy and contagion, for all other stocks, and, ultimately, for all kinds of property; for though speculations commence in intellectual considerations, the intellect becomes, eventually, subordinated to man's emotions; and speculation becomes a passion, which, ultimately, like extreme hunger, devours indiscriminately whatever comes within its reach. Some men continue intellectually possessed enough to know the nature of the speculative traffic that is in progress, but they will purchase at high prices what they know to be worthless, believing that less intelligent or more reckless speculators will repurchase the articles at still higher rates.

Government has endeavored to create a lucrative use for the legal tender notes only in five years 6 per cent. stocks, already alluded to; and in giving 4 per cent. interest on deposits thereof, with the assistant treasurers; but the rate of interest proves itself, like the offer of stock, to be an insufficient inducement to the holders of the paper. Why enough interest should not be given to absorb the notes in either deposits or stocks, is difficult to comprehend; for no good reason is apparent why government should not pay for the money it wants what is requisite to obtain the money, instead of unnecessarily creating a surplus of unproductive capital.

THE FINANCIAL UTILITY OF TENDER NOTES MUST NOT BE PREJUDICED BY ANY CURABLE DEFECTS IN THE MANAGEMENT OF THEM.

As a means of borrowing money, no mode can be devised so prompt, effectual, and little expensive, as the issue of legal tender notes to the extent of the sums from time to time desired; if connected therewith, a profitable use for the notes can be created; but to issue the notes without supplying such a use, the notes become a species of forced loan without interest, and therefore the worst conceivable means of obtaining money, excepting taxation, taxes being a forced gift, and, therefore, worse than a forced loan. We may concede that government can raise all necessary funds by sales of new stocks, and taking in pay therefor irredeemable bank notes; but independently of the large gains which loan contractors would exact from the government for becoming the instruments of diffusing such stocks through the community, and the necessity which would ensue that the government should circulate among the public creditors, irredeemable bank notes, as was practised in the war of 1812, the circulating medium would be increased by the operation as much as by the issue of legal tender notes. Even should government issue proposals for new loans, receiving in payment only its

own tender notes, the price at which any loan could be negotiated would always have reference to the obtainability of legal tender notes; and, therefore government has no option but to issue legal tender notes for the loans it would negotiate. The only question is, whether the notes shall be funded by the public day by day, or in large masses by stock contractors. No doubt, persons who would become contractors for new loans, would advise the last named mode of raising funds, in preference to an augmented issue of legal tender notes with such an increased inducement to fund them, as shall be found practically efficacious. The alternative to be selected, is, of course, a matter of practical judgment; but with a proper pecuniary inducement to fund or deposit the legal tender notes, no great addition, if any, need be made to the mass already in existence, government reissuing the notes that shall come back from time to time, into its possession, by the funding, or other process, that government shall devise.

To remedy any existing surplus of paper money, and thereby to obviate objections against an augmented issue of tender notes, some persons propose a prohibition against any paper money, except tender notes. The prohibition would doubtless be a less expensive diminution of paper money than the creation of a profitable use for the legal tender notes, by funding them, or otherwise. But we must not wilfully ignore, that government has already tried the experiment with paper money, of sums less than a dollar; and yet, despite the prohibition, the whole Union is in a process of becoming almost covered with the prohibited fractional currency. But the larger currency is deemed more manageable than the fractional, and a bankrupt law, and other means, are suggested, as available to the advocated prohibition. Having no confidence in the practicability of the measure, I shall leave it, with the single well attested axiom, that governments are always more successful when their measures conform to the habits of their people, than when they endeavor to make the people's habits conform suddenly with any conflicting measures that the government may deem preferable.

Analogous to the foregoing measure, a prohibition against the exportation of specie has been suggested, as a corrective of the existing appreciation of gold over paper money, tender notes included, and, no doubt, whatever will diminish the uses of specie, will diminish the demand therefor, and consequently, correct ratably any deficiency of the existing supply of gold to the existing demand. Nations not unusually prohibit the exportation of their coins, but they rarely prohibit the export of bullion, thus manifesting that the prohibition of coin is not founded in the attempt to diminish the relative market value of gold and silver generally. Our exports of specie are manifestly not large enough to be a very efficient cause in the present price of gold, thus showing that other uses therefor exist, and which the prohibition will only slightly effect. And we must remember that gold is one of our own productions, and that any arbitrary legislation against its natural and accustomed uses could not fail to discriminate disadvantageously and offensively against our gold-producing regions. Far less invidiously might legislation be directed against the persistent monopoly of the precious metals by banks, after the banks refuse to employ them as a redeeming fund. A release of the specie thus monopolized would probably go far to reduce the present price of gold to its normal value, and no great cause of complaint would seem to exist, if banks were perpetually restrained from a suspension of specie payments so long as they possessed any specie; and certainly nothing seems more unreasonable than to permit banks to profit

in their specie by any advance in the price thereof, produced by a suspension of specie payments, a suspension which banks can always avoid by a timely conduct directed to that end. Still, reasons can doubtless be suggested against any such coercion of banks, as well as against a prohibition of the exportation of specie, or interfering in any other way with the freedom of commerce. While we direct our speculative investigations to the causes of existing events, we usually are in little danger of great practical mischief; but when we endeavor to foresee the future consequences of new and untried measures, the good we theoretically anticipate may not occur, but evils, unforeseen and of great magnitude, may arise in its stead.

Another correction of the price of specie, by diminishing the uses therefor, may ensue from a discontinuance of the discrimination government itself has established in favor of specie and against its own legal tender notes, in the payment of duties on imports, and in the payment of interest on the public debt. When interest on the public stocks was made payable in specie, the regulation had reference to a sale of the stocks by government; but the mode thus contemplated of obtaining funds was found impracticable to any desired extent, and was abandoned. The specie payments of interest, therefore, operate only as a pecuniary gratuity to the persons who hold government stocks; and who are less objects of worthy consideration than the multitudes of persons who are compelled, by law, to surrender daily, interest-producing debts, and to receive therefor legal tender notes that bear no interest. As one step usually leads to more in the same direction, the promised payment of interest in specie compelled government to disallow the reception of legal tender notes for import duties, that specie might be provided to pay interest on stocks; and, we may suppose, a like reason induces government to create a new use for gold, by paying interest thereon at its assistant treasuries. During the whole period of suspended specie payments by Great Britain, the public creditors, foreign as well as domestic, were paid in paper money. Still, the present method may be founded on better reasons than are known to the writer; but how justifiable soever the reason may be, the uses which government necessitates for specie, tends to enhance its market value, and ratably to diminish the equivalence between specie and legal tender notes.

Having thus considered briefly, and, I hope intelligibly, the financial topics prominent at the moment, I conclude by disclaiming any partisan design therein, and in proof thereof, I have asserted nothing different from what I thought fifty years ago, and published in the year 1813, through the then New York extensive publishing house of G. & C. CARVILLE, at No. 108 Broadway, under the title of "An Inquiry into the Nature of Value and of Capital, and into the operations of Government Loans, Banking Institutions and Private Credit, by ALEXANDER B. JOHNSON." The book contained as an appendix, "An Inquiry into the Causes which Regulate the rate of Interest and the price of Stocks." The work gained some attention by its adaptation to the circumstances of the country at the time, and especially under the apprehension of a suspension of specie payments by the banks, an event which had never been experienced in our country, and the consequences of which the book endeavored successfully to foresee. The book has long been out of print and forgotten, and I possess thereof a single copy only. If the present condition of our country shall revive an interest in the teachings which I have herein extracted from the work, it will constitute an additional proof of the apothegm of Shakspeare, that "Many things by season seasoned are to their true use."

**HINTS AS TO THE DEVELOPMENT OF OUR CALIFORNIA-CHINA TRADE.****CAN WE RENDER OURSELVES INDEPENDENT OF BRITISH OPIUM?****BY EMANUEL WEISS.**

ALTHOUGH I do not belong to the balance of trade school, and although I hold conclusions politicians are wont to draw from commercial statistics somewhat light, yet I beg to draw your readers attention to the balance of our last year's China trade, which, though not so bad as this year's one will prove, cannot fail to awaken just misgivings in the reflecting mind of every sober and practical merchant.

Last year we received from China over \$11,000,000 worth in tea, silk, and sundries, which were paid for as follows :

36 per cent in six months sight drafts on England against transatlantic shipments.

10 per cent in foreign goods paid as the above.

14 per cent in Mexican silver, paid chiefly in raw cotton.

22 per cent in domestic cotton cloth.

18 per cent in provisions, ginseng, mercury, and others (among which but \$80,000 in California gold.)

From this statement we see that 60 per cent of our Chinese trade consist of an indirect, and but 40 per cent of a direct exchange of goods with the Celestials.

In both the direct and indirect exchange, cotton, raw and manufactured, plays a conspicuous part, and the failure of this staple makes us more dependent on British interference in our tea trade. The four millions of six months sight drafts against our shipments to England, which we give in part payment to the Hong merchants, serve in their turn to acquit a small portion of the Indo-British and Turkish opium smuggled under the connivance of the British authorities into the Celestial Empire.

The British checked our King Cotton, let us answer them with an attack on their Queen Opium.

They have been studying for some time how to render themselves independent of our cotton ; and they have tried hard to increase the cultivation of cotton in Cutch and Guzurate, but normal prices offered no inducement to the indolent Hindoos to extend this rather toilsome branch of agriculture, and even now, under quite favorable circumstances, they move but reluctantly onwards, not trusting in the continuance of abnormal cotton prices. Thus, the British, to secure their ends—the continuance of premium prices for cotton growing—do their best to foster the internecine struggle of their once successful rivals in commercial supremacy, in providing the rebels, quite openly, with the means (vessels, arms, and ammunition) of a protracted resistance.

Our rivals are not aware that we can retaliate on a very tender part of their commercial vitality—say in their opium trade. True, the produce of slave labor was a great stimulus to our trade and navigation, but opium is the

*sine qua non* in their Chinese trade, and for this reason the transcendent moralists of Scotland and England never touched the morality of this traffic, in spite of their Puritan zeal in less worldly and less important peccadilloes.

To illustrate the better my assertion, I insert here a paragraph from the *Bombay Times* of the 20th of June, 1853, headed: "Rough Draft of a Petition from the European Community in Bombay unto the Honorable the Commons of Great Britain and Ireland, in Parliament Assembled," and sec. 4, concerning the opium monopoly, says: "Your petitioners would point to the acknowledged fact of the utter want of public thoroughfares of any description, and the deficiency in the means of communication and transport betwixt one part of the country and another. The same circumstances that affect the progress of industry and interests of trade equally affect the revenues of the country, which from 1841 to 1850 never were once able to meet the public charges, and which hang on such a precarious tenure that, were the Chinese Government to sanction the production of opium within the Empire, or the Americans to settle themselves anywhere in the East where the poppy might be grown, £3,000,000 sterling would be swept from our revenues at once."

In 1850 the importation of Indo-British opium into China amounted to 50,000 chests; ten years after, it reached near 70,000; and now, under Her gracious Majesty's direct rule over her Indian dominions, and under the pressure of her recent victories over the poor Celestials, this traffic has swollen to 90,000 chests (!)—apparently to cover the deficiency of the heavy remittances of former years in cotton wool from Bombay and Surat, which are turned now from Canton to Liverpool.

Happily it needs no new settlement to carry into effect the wise suggestion of the memorialists in the *Bombay Times*. Soil and climate in the southern part of California (east of Bombay,) are as good as we can desire for the production of opium, as some Celestial settlers have proved since, although on a small scale, yet to full and satisfactory evidence, and which is not astonishing either, as the poppy, to my knowledge, grows spontaneously on all the elevated plains (plateaux) of the neighboring republic.

Tea has become indispensable with the Anglo-Saxons; its consumption surpasses already 130,000,000 pounds per annum; also silk is largely exported from China to industrious Europe to the amount of over 30,000 bales a year.

|                         |              |
|-------------------------|--------------|
| Valuing the tea at..... | \$21,000,000 |
| The silk at.....        | 18,500,000   |
| And sundries at.....    | 2,500,000    |

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|                                                                             |              |
|-----------------------------------------------------------------------------|--------------|
| We find the annual export from China to the western world to amount to..... | \$42,000,000 |
|-----------------------------------------------------------------------------|--------------|

It is a well known fact that the Chinese refuse our gold, and that we (the western nations, *i. e.* the red haired barbarians) can settle on this thrifty and crafty people but \$10,000,000 worth in cotton, (?) rice, dry goods, copper, ginseng, and the like. How have we to account for the balance without the opium? Why, all the mines of Christendom could not furnish *silver* fast enough to do it!

One-third of the Chinese export goes to the United States. Why should the citizens of this country not plant this much in opium on the Pacific shores

as long as the article sells, and sells well—better than cotton ever did in its best days! This cultivation is monopolized not only by the British, but also by the Dutch and Spanish colonial authorities in India. Much has been said by our Anglo-phobic and Puritan press of the immorality of this trade, yet it has been studiously ignored that our Boston houses in the Chinese ports indulge as largely in this contraband trade as their rivals, the English and Parsee.

Opium is both chewed and smoked; only the former mode of enjoyment of this luxury is detrimental to the human frame, whereas the latter is far less so than the use or abuse of fermented liquors, against which opium smoking may be considered even a sure preventive.

The poppy is called in Arabia "Abou numm," the meaning of the Spanish "Adormidera," and the Latin "Somnifera," and the Arab word "affioon," for its sap, shows the origin of the word opium. This drug has been known for over 2,000 years, and its abuse dates back to the Eleusian feasts. Over 400,000,000 of human beings in the Eastern hemisphere are addicted to the habits of opium smoking and chewing.

PEREIRA, in his *Opera Medica*, says: "Opium is undoubtedly the most important and valuable remedy. We have for other medicines one or more substitutes, but for opium we have none, at least in the large majority of cases in which its peculiar and beneficial influence is considered." In England the consumption of opium as a drug has doubled in these last twenty years, and is increasing still; it amounts to over 2,000 chests a year, and no doubt in our republic the consumption of this indispensable drug is not far behind that of the mother country.

The species of poppy cultivated in the East for the sake of the sap (opium) is the so-called garden poppy or *papaver somniferum*, of which there are two kinds, the common white and the common black poppy, both equally rich in sap; the former only excelling in narcotine and the latter in morphine, the substance giving the intrinsic value to opium. Compressed pods are said to contain less morphine than those of oval shape; the same with the poppy with filled blossoms, which is not so rich in sap as the one with simple blossoms. The greatest amount of morphine is obtained from the pods with brownish-purple flowers.

The poppy suffers nothing from insects, and its flowers give rich food to the bees. The oil of the white poppy is considered in Europe the best, after the olive oil. The poppy wants calm, warmth, and a loose soil; manure agrees with it on the best of lands—a sub-soil of clay is prejudicial to its growth. The poppy thrives well after fallow produce, which leave a clear soil, such as treffle, cabbage, and potatoes; on a rich soil it may be cultivated also in continuance. After the poppy crop, a crop of barley can be raised the same year. Wet does not agree with the poppy, and a rain of two days duration at the maturity of the plant will spoil the whole opium crop. The best opium produced in Asia Minor comes from the plateau in the vicinity of Kara Hissar. The soil of this plain is of volcanic origin, belonging to the trachytic formation.

In the districts of Behar and Benares, in the Ganges valley, the poppy is sown in November; in Upper Egypt (Thebes,) in January; and in the Delta, at the spring equinox. In Mexico, the poppies are blooming from April to June. In California, the poppies must be sown towards the end of the rainy season, so that their maturity falls in an epoch when the rain is no more to be dreaded. Heavy night dews are increasing the contents

of morphine in the sap. This cultivation takes but three months and-a-half in the year.

The soil, by rational cultivation, must be plowed and harrowed carefully before the poppy is sown. To an acre, but two pounds of seed are required, which are mixed with earth, so as to throw them thin and regularly enough. Weeds must be rooted out as soon as they spring up, and when the young poppies stand too close, they must be thinned so that every plant has about a square foot room and an easy access to facilitate the collection of the sap, taking heed that the plants, especially on a loose soil, do not stand too thin and can resist the winds. This latter operation is done when the plant has reached two or three inches, before it would disturb it in its growth. A month after the sowing, the ground ought to be hoed, and as soon as the blossoms show, the earth round every plant must be heaped up. No pains in the tillage must be spared, as they will be amply repaid by the increase, and the improvement, too, of the sap of the plant. The Fellaheen, who do nothing of the sort, obtain but pods of the size of a large pigeon's egg, whereas, by rational cultivation, they may be brought easily to four inches diameter, and more too.

After the fall of the blossoms, when the capsules or pods are filled with sap, yet before they harden and turn yellow, horizontal incisions are made with an instrument composed of four or five blades united and shaped so that the rind of the pod cannot be cut through in the operation. As the falling of the blossoms drags on four to five days, this operation has to be attended to every evening about sunset on the newly bared heads. The pods by ripening lose a great part of the morphine salt, so it is not convenient to postpone the bleeding of the pods even for a day. The collection of the sap by scratching off with blunt knives is done at the end of the bleeding operation, no inconvenience to be feared by waiting so long as the sap hardens quick and never drops to the ground.

The ripening of the seeds is not injured by the bleeding of the pods as regards the oil, only for sowing they will not do because the plants they produce are weak and poor in sap and the sap too of inferior quality; therefore the seeds for sowing must be taken from unhurt pods. To this purpose large capsules of oval shape are selected, which are dried in the shade, then filed on strings by the stems and hung up in a dry room with not too much draft, where they remain unopened till seed time.

An acre of poppies will give from 40 to 50 lbs. of opium by bleeding; but in Turkey also the stems and leaves (after the pods being removed) are collected and well boiled in water on the spot. The decoction, without being strained, is poured out into pans, mixed up with the sap of the pods, then boiled down to the consistency of soft pitch, formed into loaves of about a pound weight and wrapped into poppy or tobacco leaves to keep them from sticking together. But a trifle of opium in drops, *i. e.*, from the pods merely, is brought to market in the bazaars of Constantinople and Bressa to suit the Theriakees (opium eaters); such opium contains from 12 to 15 per cent of morphine; the decoction from the stems and leaves contains about 5 per cent, and the compound of both from 9½ to 10 per cent of the costly salt. Of this latter drug, known as the Smyrna opium, an acre produces largely 120 lbs.

The Turks, in the new treaty of 1840 with their teachers in commercial liberty and morality—the Russians, Austrians and Englishmen—along with the rest of monopolies, had also to surrender the one in opium; still



the latter cling to the opium monopoly to this day with the same tenacity as our slave aristocracy to their peculiar institution. So the lease-holders of certain districts in British India are bound to produce and to deliver annually a given quantity of this drug to the Colonial Government at the fixed price of \$150 the chest, of 140 lbs. of opium, a price which still leaves a small remuneration to the producer. According to information collected personally on the spot, the cost of production of opium in Upper Egypt is about 60 cents, and in Anatolia (Asia Minor) 75 cents the pound. In the latter province, in spite of the abolition of monopolies, the Turkish governors still control this trade to their own benefit.

To secure to the enterprise the speediest success, the operations ought to be entered upon with 10 or 20 Greek families from Magnesia, in the opium districts in Asia Minor, who, along with the production of opium, would devote themselves also to the drying and preserving of figs and grapes and the culture of wine.

The fermentation between the Christian and Moslem subjects of the Porte is growing worse every year, the former, by far the weaker part in the Asiatic provinces, are in constant dread of a repetition of the butcheries of Damascus and Djudda, and will gladly avail themselves of any opportunity to move to better parts, especially if the chance is given to them to continue their mode of living in the accustomed way, and in a country as beautiful, and in a climate as mild as in the land of their birth. This is certainly the case with the southern part of California on the banks of the Gila and Colorado Rivers in the vicinity of San Diego.

To try is to succeed. The production of opium wants neither chemical or mechanical skill, no costly apparatus, no large outlay of capital, and in the vicinity of San Diego, land, labor and cattle are at normal prices, unaltered yet by gold excitement or emigration. Any amount of opium produced there would find a ready market in the capital of the State, whose commercial relations with Japan and China are improving daily. Opium in California will lead the Chinese tea over the projected Pacific railroad, and will create a revolution in the Eastern trade, not much to the benefit either of England or France.

## THE AMERICAN JUTE.

PAPER BY H. HOWSON, ESQ.

READ AT THE MONTHLY MEETING OF THE FRANKLIN INSTITUTE, OF PHILADELPHIA, OCTOBER 16TH, 1862.

I HAD the honor of submitting to the members of this Institute, some months ago, several specimens of a fiber similar to, but of a much more crude character than those now before the meeting.

The fiber constitutes the outer covering or bark of the stalks of a North American perennial plant, of the order *Malvaceæ*, known as the *Hibiscus Moscheutos*, or *Palustris*—the plant as well as the fiber having received the name of American Jute. This term, however, may be considered inappropriate, for the reason that the Jute of the East Indies is the production of the *Cochorus Olitorius*, or *Cochorus Capsularis*, neither of which plants has any relation to the order *Malvaceæ*, and for the further reason that the fibers of the *Hibiscus* are not so liable to become deteriorated by exposure and washing in alkaline lyes as those of the Jute.\*

The utility of the fibers of this plant was brought to light by Mr. W. J. CANTELO, who, during the last three years, has been actively engaged in examining and testing the peculiarities of plants indigenous to the Northern States, with the view of discovering a fiber available as a substitute for linen rags in the manufacture of paper, for hemp in the making of ropes, matting, &c., and as a partial substitute for cotton or woolen in the manufacture of textile fabrics.

A patent was granted on May 13th last, for the utilizing of the fibers of the *Hibiscus Moscheutos*, and this patent is now owned jointly by Mr. CANTELO, the discoverer, and his assignees, Messrs. STUART and PETERSON, of Philadelphia.

These gentlemen, aided by Mr. CANTELO, have, during the last eighteen months, been actively engaged in investigating the subject, and in prosecuting experiments with the view of determining the properties of the plant, the strength and value of the fiber, the requirements demanded for its proper cultivation, and the amount of fiber which can be obtained from an acre of ground.

The proprietors of the patent are now prepared to lay before the public the satisfactory and highly important results of their very careful experiments.

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\* We have received from Mr. Howson specimens of rope and cord made of the fiber referred to in this paper, and also specimens of the fiber itself, together with a photograph of the plant, *Hibiscus Moscheutos*, as grown in the neighborhood of Burlington, N. J., the past summer. Any or all of these we should be happy to exhibit at the office of the *Merchants' Magazine*, to as many of our readers as may feel an interest in the matter. Certainly all must agree with us, after seeing the specimens we have in our possession, that this discovery promises well, and we trust that the efforts already made in its behalf, will be followed up with energy.—Ed. *Merchants' Magazine*.

The *Hibiscus Moscheutos* is indigenous to the Northern States, and grows in abundance in swampy lands of Pennsylvania, New Jersey, New York, &c.; in the marshes of Burlington county, New Jersey, it is especially abundant.

In its natural state, stalks of the plant, when at their full growth, are from five to six, and even seven feet high, and vary from a quarter of an inch to five-eighths of an inch in diameter. The number of stalks from one root vary from eight to sixty; and eighteen stalks of an average size will produce four ounces of disintegrated fiber.

An acre of marsh land, in the neighborhood of Burlington, N. J., was plowed, and seeds of the "*Hibiscus Moscheutos*" spread along the furrows on the 28th of April last. On examining the land in September the ground was found to be thickly studded with seedlings, of which the drawing produced represents a specimen. It should be understood that little or no care was taken to weed the ground, and to give that attention to the young plants which will be advisable during their first growth.

It has been discovered by previous experiment that on cutting one of the stalks one season, a dozen or more would take its place the next, and that the plants would require no attention after the first year's growth. As to any liability of the plants becoming deteriorated from the ravages of insect, it was found that in no instance could any marks of insect depredations be observed on the stems, leaves, or roots of the plant.

The next point to be ascertained was the amount of fiber which could be produced from an acre of ground, planted with the *Hibiscus Moscheutos*.

This has been determined by a close observation of the plant in its natural state, and by weighing the fiber taken from a number of stalks of average dimensions. At a moderate calculation, and taking into account the probability of loss from unforeseen causes, three and a half tons of disintegrated fiber can be derived from one acre of ground.

Another important point decided was the facility with which the fiber or bark of the stalks could be separated from the pith.

It was discovered that this could be accomplished with ease and rapidity, even without the aid of machinery, which can readily be applied to the purpose.

The bark after being detached from the pith is at once removed to a very simple apparatus, invented by Mr. CANELO, when the bark is reduced in a comparatively short time to the disintegrated fibrous condition shown by the specimens exhibited—the fiber in this state being ready for the market, either for conversion into rope or for paper stock.

As to the value of the fiber, it has been declared by experienced rope manufacturers to be far superior to manilla hemp or Jute—the specimens of rope exhibited being fully equal in strength and pliability to ordinary hempen rope.

Two prominent paper manufacturers of this city have estimated the fiber to be worth \$100 per ton, to be used as a substitute for linen rags in the manufacture of paper.

The utility of the fiber as a substitute, or as a partial substitute, for cotton, woolen, or flax, in the manufacture of textile fabrics, has not yet been fully tested, but I am satisfied that the members will, after an examination of the specimens before them, be convinced that the utilizing of the fiber is not limited to the making of rope and paper, but that it is admirably adapted to the manufacture of many textile fabrics.

When we take into account the fact that fiber of the value of at least three hundred dollars can be derived from one acre of ground; that the ground best adapted to its growth is of such a swampy character as to be unfit either for cultivating ordinary farm produce, or for grazing purposes; that the plants require no attention after the first year's growth, but, unaided by any chemical or mechanical appliances, present a yearly supply of stalks ready to be converted into fiber; when we consider the hardihood of the plant and its freedom from the ravages of insects, we must admit that the greatest credit is due to Mr. CANTELO, and that his discovery is of the greatest importance, as it opens new avenues for the exercise of agricultural, mercantile and mechanical pursuits, and tends to the utilizing of the swampy deserts with which our Northern States abound.

I am anxious, Mr. President, that the members present should understand that the specimens of fiber have been prepared without the aid of any complex machinery or elaborate chemical apparatus—the appliances which the inventor has called to his aid being of the most simple character.

The samples of rope were made by hand; the maker asserting that had they been manufactured by the usual machinery the rope would have been of a much superior character.

Although the specimens are most satisfactory, and are sufficient to convince the most sceptical observer of the importance of the discovery, its value must necessarily be still further developed by the aid of appliances which may be demanded by the preparation of the fiber on a large scale.

The attention of Mr. CANTELO has not been confined to the fibers of the *Hibiscus Moscheutos* alone. Few plants in this and the neighboring State of New Jersey have escaped his searching investigation and his elaborate tests.

He has discovered that the plant next in importance to the the *Hibiscus*, as regards its fiber bearing qualities, is the *Abutilon Avicennæ*, an annual, readily cultivated, and hitherto considered a useless weed. The fibers of this plant, a specimen of which I submit for inspection, are of a silky character and extraordinary strength.

The utilizing of the fibers of the *Abutilon*, as well as the disintegrating process alluded to, form subjects for further applications for patents.

In conclusion, I would remark that a company—of which the proprietors of the patent will be members—is about being organized for the cultivation, or I should rather say planting, (cultivation, as the term is usually understood, being unnecessary,) *Hibiscus Moscheutos*, and the preparation of the fibers for the market. The members present will be satisfied that success must attend the efforts of an enterprising company who follow up with energy the prosecution of this important invention or discovery, which has been developed with such praiseworthy zeal by Mr. CANTELO and his assignees.

## NORWAY AND ITS COMMERCE.

*To the Editor of the Merchants' Magazine :*

To YOUR readers who are interested in the commercial affairs of all nations, and desire information as to the magnitude, kind, and variety of their most important resources, the subjoined figures showing in part the trade and commerce of Norway, may prove useful and interesting. They are taken from the latest published reports, namely, for the year 1860, and contain some of the principal articles of imports and exports for that year :

| EXPORTS.                  |           | IMPORTS.                 |            |
|---------------------------|-----------|--------------------------|------------|
| Fish, salted & dried.cwt. | 567,759   | Breadstuffs.....bush.    | 5,976,996  |
| Herring.....bbls.         | 829,765   | Beef.....lbs.            | 901,045    |
| Roe or spawn.....         | 34,064    | Pork.....                | 916,044    |
| Cod liver and other fish  |           | Salt.....bbls.           | 661,447    |
| oils.....                 | 54,487    | Anthracite coal.....     | 1,127,133  |
| Iron.....tons             | 3,821     | Butter.....lbs.          | 3,035,335  |
| Copper.....lbs.           | 1,110,795 | Cheese.....              | 586,781    |
| Timber and deal.....      | 808,793   | Coffee.....              | 8,909,902  |
|                           |           | Sugar.....               | 11,073,304 |
|                           |           | Tobacco.....             | 3,550,880  |
|                           |           | Wines.....gallons Imp.   | 161,957    |
|                           |           | Brandies.....            | 135,700    |
|                           |           | Cotton.....lbs.          | 4,121,704  |
|                           |           | Cotton, manufactures of. | 1,003,037  |
|                           |           | Flax.....                | 4,200,223  |
|                           |           | Linen manufactures....   | 1,049,370  |
|                           |           | Cordage.....             | 296,459    |
|                           |           | Wool.....                | 212,679    |
|                           |           | Wool, manufactures of.   | 616,823    |

Amount of exports for the year, 18,000,000 ; and imports, 16,000,000, specie dalere.\*

## VESSELS ARRIVED.

|                              |        |           |               |
|------------------------------|--------|-----------|---------------|
| Norwegian, with cargoes..... | 2,909  | measuring | 268,986 tons. |
| "  in ballast.....           | 3,282  | "         | 563,373 "     |
| Foreign, with cargoes.....   | 2,212  | "         | 134,811 "     |
| "  in ballast.....           | 1,985  | "         | 172,654 "     |
| Total .....                  | 10,388 |           | 1,139,824     |

## VESSELS LEFT.

|                              |        |           |               |
|------------------------------|--------|-----------|---------------|
| Norwegian, with cargoes..... | 5,982  | measuring | 735,371 tons. |
| "  in ballast.....           | 721    | "         | 233,401 "     |
| Foreign, with cargoes.....   | 3,728  | "         | 267,785 "     |
| "  in ballast.....           | 458    | "         | 39,830 "      |
| Total.....                   | 10,889 |           | 1,276,387     |

\* Par value, \$1 06 each.

At the close of 1860 the commercial fleet consisted of 5,287 vessels, measuring 665,392 tons, manned by 33,014 sailors, and was after that of England and France, the largest in Europe.

The financial budget for the year was 4,755,000, specie dalere, of which spd 1,002,250 was for the army, and spd 503,500 for the navy.

The result last winter in the large codfisheries of the northernmost part of the country proved almost a failure, which seriously affected those districts, and consequently has diminished the usual exports of cod liver and other fish oils. On the other hand, the herring fishery in the early part of the year, on the southwest coast, was uncommonly large.

This year the country will need large importations of breadstuffs, (larger than usual,) as the heavy rains this summer—so says a late letter from there—have greatly injured the crops. Some importations of breadstuffs have already been made from New York, but our troubles have now frightened the merchants, and led them to turn their attention to the Black Sea.

A new feature in the trade of that country with this, is the arrival at Chicago of a hermophradite brig—*Sleipner*, Captain WAAGE—direct from Bergen. She left Bergen May 23d, with 150 passengers and 200 barrels of herring, arrived at Quebec July 1st, where she remained ten days, and proceeded thence to the great lakes; arrived at Montreal July 1st, went through the Welland Canal the 21st, arrived at Detroit the 25th. There she left 40 passengers. Proceeded on to Lake Michigan and arrived at Chicago August 2d. She is described as a beautiful vessel, of 350 tons burthen, and is the first arrival of a European vessel entering that port direct from Europe. A few days ago she left laden with breadstuffs for Bergen.

Norway, as your readers know, is situated between latitude 58 and 71 degrees, forming a very long but narrow strip of territory, separated from Sweden on the west side by the mountain chain "Kjölen," and is washed on the east side by the North Sea; contains 5,800 Norwegian geographical square miles, and 1,500,000 inhabitants.

The climate is very salubrious and mild all along the west coast, but the interior is colder. The harbors on the western and northern coast are very seldom frozen, being influenced by the Gulf Stream, which runs along that coast, and has the effect to soften the atmosphere also. On the east coast the harbors are more or less frozen during the coldest winter months. The daylight is very long during the summer, extending almost through the whole twenty-four hours; but in winter the shortest days in the south of the country are only six hours long, and towards the north even shorter still.

The country is very mountainous the highest top being full 9,000 feet above the water; has several glaciers, fertile valleys, good pasture land, deep fjords (bays) running far into the country, and many lakes. The coast is rocky and studded with innumerable islands, which form fine harbors. The mountains are covered with cascades and waterfalls—one of which, "Wöringsfossen," full 1,200 feet high, is the largest and the highest in Europe—forming magnificent scenery, which is attracting many tourists from various parts of Europe and a few from this country, whose number is constantly increasing.

The natural and principal sources of income and occupation are those of the forest, mining, the fisheries, and navigation. The manufacturing

of textile fabrics is yet in its infancy. It is only in the last 20 years that any attempts have been made in that line, which now has taken a deeper root, and is steadily increasing; so are also many other industrial and mechanical pursuits, which cannot fail of success among an intelligent and ingenious people.

The early history of Norway is shrouded in traditions and fables, and is uncertain. At what time it received its first inhabitants, and to what races they belonged, and whence they came, is equally uncertain. It is however supposed they belonged to the Lappish race, who with the Finns, made the original inhabitants, and who at a later period were expelled by the Goths, who entered the country from Sweden. The Goths, a branch of the great Germanic race, brought with them the Asce religion and a considerable degree of culture.

Up to the ninth century the country was under the feudal system, governed by petty kings and lords, under various names as Jarls (Earls) Chieftains, &c., till HARALD HAARFAGER, (HARALD the Fairhaired,) in 885 gained the victory over his enemies, by which he became master of the whole country, giving it the name of Kingdom, which title it has retained till the present time. HARALD was ten years old when his father died and he ascended the throne; he reigned from 863 to 933, and was a successful warrior. He died in 936, after having a short time previously appointed his sons as governors over various provinces, and one son, ERIC, as his successor on the throne.

The people anterior and subsequent to this period were a warlike race. Their filibustering and viking expeditions, over the greatest part of Europe and into Asia Minor, have filled the early histories of those countries with their exploits and manly deeds. They were a hardy and brave race, with many noble qualities, which they honored also in their enemies.

Their love of liberty was great; they could bear but little restraint, which caused them to roam abroad and which often resulted in interesting historical facts. Thus the brave GANGER ROLF (RALF the Walker,) when expelled by the above named HARALD from Norway, entered France, compelled its king, CHARLES the Simple, to give him that province which this day is called Normandy (after Norman—Norwegian). Thus, again, while roaming over the seas, they discovered Iceland early in the ninth, and Greenland in the latter part of the same century; and by still continuing their expeditions westward, they discovered America soon after.

OLAF den Heilige (OLAF the Saint) reigned from 1016 to 1020. He succeeded during his reign in establishing the Christian religion on a firm footing. The means he used were not the most gentle, which aroused the nation's hatred against him and caused his expulsion from the country, whence he fled to Russia. He returned the following year but died in battle. After his death he was canonized and became the patron saint of Norway.

By the Calmar Union, 1397, Norway, Sweden and Denmark were united under one head, Queen MARGARETE, who was the first female Sovereign that ascended the throne of Norway. This union with Denmark lasted, with more or less interruption, over four hundred years, till 1814, when Norway was, by the treaty of Kiel, January 14th, separated from Denmark and became united with Sweden, under one head, the King of Sweden being likewise king of Norway. Norway has its own separate

and independent government, has no nobility, as it was abolished by the Storting, 1821, and has its own flag which it received July 4th, 1844. Its constitution was adopted the 17th of May—which day is celebrated like our 4th of July. It was formed after the French of 1791 and the Spanish of 1812, and is considered the most liberal in Europe. It guarantees entire freedom of speech and of the press; by it most of the magistrates are elected by the people, and the country is mainly governed by the national legislature called Stortinget—(literally the great council) which holds its session every three years in the capital Christiania, the members being elected by the people. Stortinget appropriates the national expenditures and makes the laws which must receive the King's sanction, and which he can veto; but if the same law passes three successive Stoething, it becomes the law of the land, the King's veto notwithstanding.

The Lutheran church is that of the State, but religious liberty is secured to all.

The people, dwelling among the mountains, are more readily inclined to listen to the voice of God, who speaks to them through His majestic works before them, than the dwellers of the plains. There is an earnestness in their nature, partially religious, which seems to tell them that "life is real, life is earnest," which pervades their whole being, gives them a solidity of character, and a desire for usefulness, which make them good members of society.

Education is a subject which has attracted much attention among them. In few countries of Europe has more been done for its extension and to secure its blessings to the whole people, and this is constantly increasing.

The University at Christiania, which is very thorough in its instruction, was founded in 1811, has 600 to 700 students, with a faculty of eminent Professors, many of whom have a European reputation and are not unknown in this country. Besides this, there are Latin and other schools of learning of a high order in the cities and large towns, both public and private, and in the country schools are scattered through all the districts.

Since 1814, when Norway received its present Constitution, the country has made great progress in art and sciences. About 35 years ago the first steamboat commenced to plow its waters, since which time their number has increased on the lakes, and fjords along the coast for inland and for foreign commerce. The iron horse is conquering the rugged nature of the country, and is now traveling on a few roads whose number is increasing. The telegraph spreads its net over a great part of the land, informing it of the daily events taking place in other parts of the world. To promote still more the internal communication of the country, a system of road building has been in progress the last 15 years or more, which, for solidity, elegance and comfort, would do honor to any country. The roads cross the mountains, are cut into the mountain sides, and are suspended over mountain gorges, evincing masterly engineering skill.

From the earliest times the people have been accustomed to participate in the public affairs of the country; this interest they have retained, and it has taught them self-government. The Danish Sovereigns ruled with de-



spotic power, and contrary to their solemn oaths, made at times great inroads on public rights and privileges, till unpleasant warnings compelled them to desist from such a suicidal policy, when they left the people in possession of their rights, in order to regain their good will. This watchfulness is still alive, which caused the late Mr. WHEATON—who represented this country at the Courts of Copenhagen and Berlin—to say that “Norway was the hotbed of democracy in Europe.”

The Norwegian of the present day is loyal, manly, independent, respectful, reliable, and a great lover of his country and its constitution. Their songs inspire them with these virtues, and with their Sages relate to them the heroic deeds of their ancestors who planted the seed of civil liberty wherever they settled, the fruits of which are seen in England and have been transplanted to this country.

The reader will observe the large import of breadstuffs and provisions. An alpine land like Norway, with fertile valleys and good grazings, ought to feed itself, but too much attention has been paid to the before-named pursuits to the great detriment of one of the most important branches of occupation which sustains the States, namely: that of agriculture and of cattle raising. Of late years the Statesmen and political economists of Norway have seen this great error and are endeavoring to remedy the evil by establishing agricultural schools, publishing journals, and works on agriculture, importing cattle to improve the breed, and educating and elevating the farming class to their true position in society. There is however one drawback which the farmer encounters—the early frost, which often in one night destroys the labor of the season. A more perfect knowledge of cultivating the soil by bringing the crops forward to an earlier maturity would, in some measure, prevent this misfortune.

This, no doubt, is one of the reasons which has caused so large emigration from that country to the Western States of this, which commenced twenty years ago or more. The emigrants are mainly from the farming class; some of them bring money with which to buy their land, others bring only their industrious habits and strong muscles, and occasionally their spiritual guide accompanies them. They are settled mainly in Illinois, Wisconsin, Iowa, and Indiana. The Scandinavians being mainly from Norway, with their descendants numbered three years ago 150,000, published ten secular and religious papers in Danish—which is the spoken language of Norway—and Swedish languages.

Last year the number of emigrants from there was over 8000, and this year it is said to be still larger. Of late years they enter this country via Quebec, where the restriction of the number of passengers to the tonnage of the vessel has been less stringent than here, and where the vessels are more certain of a return cargo of deals to Europe. In the present war for civil liberty they are true to their cherished principles, and do their part in the field to restore their adopted country to its true position as the representative of the rights of man.

My object in sending you the above details is to give your readers a better idea than they perhaps have of the resources and wants of Norway, especially their need of breadstuffs, of which it will be seen from the above figures my native land always imports largely. Cannot the direct trade of America with Norway be increased with advantage to both parties.

Yours respectfully,

Lowell, Nov, 15, 1862

P. ANDERSON.

## BANK CIRCULATION—PAST AND PRESENT.

- ACCORDING to the report of the Secretary of the Treasury for the year ending June, 1861, the circulation of all the banks in the United States was, in 1856-'57, \$214,778,822; in 1857-'58, \$155,208,344; in 1858-'59, \$193,306,818; in 1859-'60, \$207,102,477; in 1860-'61, \$202,005,767.

This circulation, for the year ending June, 1861, was divided as follows :

|                          |              |
|--------------------------|--------------|
| Eastern States.....      | \$44,991,285 |
| Middle States.....       | 52,873,851   |
| Southern States.....     | 39,552,760   |
| Southwestern States..... | 34,600,785   |
| Western States.....      | 29,987,086   |

|            |               |
|------------|---------------|
| Total..... | \$202,005,767 |
|------------|---------------|

Thus it will be seen that for the Middle, Eastern and Western States, the circulation was about \$128,000,000 at that time. To compare, then, the present with the past, let us take the returns we have given in our bank tables this month, and we will form a pretty correct idea of our present position. First, as to the Eastern States, we have—

|                    | Circulation June, 1861.   | Circulation June, 1862.    | Increase.    |
|--------------------|---------------------------|----------------------------|--------------|
| New Hampshire..... | \$2,985,894<br>May, 1862. | \$3,183,255<br>Nov., 1862. | \$197,351    |
| Rhode Island.....  | 1,979,828<br>April, 1862. | 4,264,400<br>Nov., 1862.   | 2,982,420    |
| Massachusetts..... | 19,671,000                | 27,559,183                 | 7,888,183    |
| Total.....         | \$24,636,722              | \$35,006,838               | \$11,067,954 |

In, therefore, these three Eastern States there has been an increase, as will be seen, of about 45 per cent. Taking this as the probable rate of increase in the other Eastern States and we have a circulation from that source as follows :

|                                | June, 1861.  | Increase 45 p. c. | Pres't circulation of East'n States. |
|--------------------------------|--------------|-------------------|--------------------------------------|
| Circulation of Eastern States, | \$44,991,285 | \$20,246,018      | \$65,237,303                         |

Next look at the returns of the Middle States given in our bank tables. We have—

|                            | Circulat'n Jan., 1861. | Circulat'n Sept., 1862. | Increase.    |
|----------------------------|------------------------|-------------------------|--------------|
| New York City and State... | \$28,239,950           | \$37,557,373            | \$9,317,423  |
| New Jersey.....            | 4,164,799              | 8,124,528               | 3,959,729    |
| Pennsylvania Banks.....    | 15,830,033             | 22,550,000              | 6,719,967    |
| Total.....                 | \$48,234,782           | \$68,231,901            | \$19,997,119 |

Here the increase will be found to be about 41 per cent. Taking the same rate of increase in all the Middle States and we have a circulation from that source as follows :

|                               | June, 1861.  | Increase.    | Pres't circulat'n of<br>Middle States. |
|-------------------------------|--------------|--------------|----------------------------------------|
| Circulation of Middle States, | \$52,873,851 | \$21,678,278 | \$74,552,129                           |

By the above it will be seen that these three States of New York, New Jersey and Pennsylvania issued, in 1861, all but \$6,000,000 of the circulation then issued by the Middle States, and that the States of New Hampshire, Rhode Island and Massachusetts issued nearly two-thirds of the circulation of the Eastern States. Hence the calculation we have made as to the circulation of the banks of all the Eastern and Middle States, based upon the present and past circulation of the banks of the States named, may be considered perfectly reliable.

As to the circulation of the Western States, our figures are not as recent as we could wish, and we have not attempted therefore to give their returns in full. Yet from the data we have, there can be no doubt but that their percentage of increase has at least been as great as the other portions of our country. Putting this increase of the Western States at 41 per cent, we have the following statement in full of our present bank circulation :

|                     | Circulation June, 1861. | Increase.    | Present circulation. |
|---------------------|-------------------------|--------------|----------------------|
| Eastern States....  | \$44,991,285            | \$20,246,018 | \$65,237,303         |
| Middle States....   | 52,873,851              | 21,678,278   | 74,552,129           |
| Western States..... | 29,987,086              | 14,987,052   | 44,974,138           |
| Total.....          | \$127,852,222           | \$56,911,348 | \$184,763,570        |

The amount of paper issued by the government is \$200,000,000 or more. Of this, however, probably \$50,000,000 is held as a reserve by the banks and is not in circulation. We may conclude, therefore, that the following is a pretty correct estimate of the present circulation in the North :

|                                                       |               |
|-------------------------------------------------------|---------------|
| Amount issued by the banks, as above.....             | \$184,763,570 |
| Amount issued by government, and now in circulation.. | 150,000,000   |
| Total circulation at the present time.....            | \$334,763,570 |
| “ “ June, 1861.....                                   | 127,852,222   |

## COMMERCIAL CHRONICLE AND REVIEW.

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SIGNS OF RECOVERY—PAPER MONEY—ARREARS—CASH BUSINESS—DEMAND FOR MONEY—IMPORTS—INCREASED COST—COUNTERMAND—TABLE OF IMPORTS—RATE OF DUTIES AND EXCHANGE—DUTIES—AVERAGE RATES—FRAUDS—EXPORTS—HIGH RATE OF BILLS—TABLE OF EXPORTS—DOMESTIC GOODS—WHEAT EXPORTED—PRICE IN LIVERPOOL—FREIGHTS—APPARENT LOSS—THE "290"—SPECIE SHIPMENTS—DECLINE OF GRAIN ABROAD—EXCHANGE—RATES OF—TABLE—MODE OF QUOTING—PAR OF—DECLINE OF CURRENCY—PARIS BILLS—SALES OF GOLD—BOARD OF BROKERS—RESTORATION OF GOLD—TIME SALES—SPECULATIONS—APPARENT LOSS—EFFECT OF SHORT SALES—NEW LOAN—STRINGENT MONEY MARKET—RATE OF NEGOTIATION—GREAT FALL IN PRICE—PRICE OF STOCKS—BANK LOANS AND DEPOSITS—CONGRESS—FINANCES—ONLY ONE MODE—LARGE DEBT—HEAVY TAXES NECESSARY.

THERE has been, during the last month, some degree of recovery from the general depression which has lain heavily upon all business since the commencement of the war. The usual effect of long continued inaction begins to show itself in the adaptiveness to the existing state of things. There is a certain amount of productive industry in operation, and a consequent demand for supplies and merchandise interchangeably which must take place, and on this basis trade slowly increases in company with that unusual and extra business which grows out of the war supplies required by the government. The large amount of paper money, averaging about \$600,000 per day, paid out by the government, has aided the demand for merchandise to some extent, but the amount has borne a very inadequate proportion to the government expenses. The army is in arrears for pay many months, and the smaller channels of business are clogged by that fact—small credits have been created on the basis of the pay which has not been forthcoming, and the consumption of merchandise has been checked. Four months pay of the army exceeds \$50,000,000, which, withheld, seriously affects retail business. The debts of contractors and other parties for shipping, construction, &c., form an important item in the demand for money. It is, however, the case that a large proportion of the business done is for cash—a circumstance which rather increases the abundance of money than otherwise. In ordinary years, when business has been conducted on six months paper, discounted at bank, the autumn months are invariably marked by a rise in the value of money, caused by the maturity of paper, to meet which much difficulty is encountered. This year the demand for money has not been felt, but notwithstanding the speculations in stocks money has remained uniformly cheap until it began to be affected by the arrearages of the government. The importation of goods has been similarly influenced, since the demand did not cause a rise in prices equal to the rise in cost, through the high price of exchange, extra duties, and the value of gold. A considerable quantity of goods was, therefore, countermanded, and the amount entered for the month has declined as compared with the previous month, although it is much larger than for the corresponding month last year. The following table gives the imports for the month :

## IMPORTS, PORT OF NEW YORK.

|                | Specie.   | Free goods. | Entered for  |             | Total.       |
|----------------|-----------|-------------|--------------|-------------|--------------|
|                |           |             | Consumption. | Warehouse.  |              |
| January.....   | \$168,658 | \$2,552,050 | \$6,663,396  | \$3,141,725 | \$12,620,829 |
| February.....  | 62,007    | 3,881,478   | 7,058,174    | 3,370,486   | 13,872,140   |
| March.....     | 89,327    | 3,476,004   | 10,812,689   | 4,841,846   | 18,719,866   |
| April.....     | 26,152    | 2,232,315   | 7,141,197    | 3,853,218   | 13,252,882   |
| May.....       | 110,883   | 1,146,093   | 8,091,120    | 4,600,920   | 12,948,516   |
| June.....      | 61,023    | 1,122,092   | 7,278,953    | 2,874,127   | 12,336,195   |
| July.....      | 219,001   | 1,831,932   | 13,799,505   | 4,502,764   | 20,353,202   |
| August.....    | 92,713    | 982,992     | 10,289,427   | 2,939,721   | 14,304,843   |
| September..... | 121,318   | 1,784,804   | 11,890,711   | 4,851,084   | 18,147,917   |
| October.....   | 256,676   | 1,004,870   | 8,462,554    | 3,689,806   | 13,413,906   |

|                   |             |              |              |              |               |
|-------------------|-------------|--------------|--------------|--------------|---------------|
| Total, 10 months. | \$1,202,253 | \$19,814,625 | \$91,087,726 | \$39,165,697 | \$151,270,801 |
| " 1861.....       | 35,826,053  | 25,315,028   | 45,296,493   | 36,576,280   | 143,513,857   |

The decline in importations has been important, but a glance at the table on another page will show that the cost of importation largely increased in October. Thus, exchange averaged in September 128 per cent, in October 141—an increase of 13 per cent; gold in September averaged 19 per cent, in October 28 per cent—an increase of 9 per cent; and in October the tax law began to operate. Thus, an article that cost \$1 00 and paid 40 per cent duties, would, in September, cost to import it, \$1 76. In October the same article would cost \$2 05—a rise of nearly 30 per cent in cost, and this was not warranted by any corresponding rise in market value, and some depression took place in the amount imported, involving a corresponding decline in the government revenues. The average rate of duty collected for October this year is, it appears, 37 per cent, and for the corresponding period last year 26 per cent—an increase of 11 per cent in average duty. The government has not, however, collected all the taxes, since extensive frauds by collusion of clerks in the custom-house of New York have deprived the government of a considerable amount of what was its due. How far these frauds may have affected the accuracy of the sum of the imports there is at present no means of ascertaining. The exports of the port have been enormously large during the month of October, incited, no doubt, to some extent, by the great rise in bills, which at one time reached 52 per cent sterling, giving the shipper a large margin for his bills. Accordingly the sum of the exports far exceeds that for any previous month in the history of the port. Exclusive of specie, the amount has exceeded \$20,000,000, and as compared with previous months is as follows:

## EXPORTS, PORT OF NEW YORK.

|                | Specie.     | Foreign.  |           | Domestic.    | Total.       |
|----------------|-------------|-----------|-----------|--------------|--------------|
|                |             | Free.     | Dutiable. |              |              |
| January.....   | \$2,658,874 | \$27,193  | \$149,493 | \$12,053,477 | \$14,948,437 |
| February.....  | 3,776,919   | 49,066    | 203,757   | 10,078,101   | 14,112,843   |
| March.....     | 2,471,233   | 65,388    | 458,917   | 8,985,176    | 11,980,714   |
| April.....     | 4,037,675   | 56,350    | 607,678   | 8,002,094    | 12,703,797   |
| May.....       | 5,164,536   | 76,971    | 752,797   | 9,837,693    | 15,342,097   |
| June.....      | 9,867,614   | 43,858    | 372,561   | 10,048,832   | 20,332,375   |
| July.....      | 8,067,837   | 1,117,193 | 449,948   | 14,050,437   | 23,684,915   |
| August.....    | 3,713,532   | 417,100   | 256,680   | 13,046,359   | 17,833,701   |
| September..... | 3,085,919   | 572,572   | 667,987   | 14,734,993   | 19,061,471   |
| October.....   | 6,707,519   | 179,205   | 434,265   | 19,476,947   | 26,797,936   |

|                   |              |           |             |               |               |
|-------------------|--------------|-----------|-------------|---------------|---------------|
| Total, 10 months. | \$49,550,658 | 2,699,821 | \$4,263,668 | \$120,314,139 | \$176,828,286 |
| " 1861.....       | 3,294,852    | 2,037,500 | 4,332,275   | 103,464,788   | 113,129,415   |

It will be observed that the domestic exports took a large development in the month of July, when the shipping business was acted upon by the exchange in a manner similar to that of October. Bills from 18 per cent in the middle of June, rose to 31 in the middle of July, and exports received a great impetus, which, from the same cause, was much more vigorous in October. The exports of flour in that month were 114,230 bbls. and 8,332,003 bushels of wheat. These two items alone gave \$12,000,000 out of the \$20,000,000 exported, and were shipped at the expense of the consumers of goods here. Thus, in the month of October extra United States flour was, in Liverpool, 24s. per bbl., or \$5 81. In New York it was \$6 40, and freights 60 cents, making \$7 00, or \$1 19 per bbl. more than it realized in Liverpool. The shipper, however, got for his bill 30 per cent above par, in paper, making \$1 74 or 55 cents apparent profit. It will be observed that this extra 30 per cent is paid by the importer of goods and charged to the consumers of these goods. Thus the farmer pays in the prices of his tea and coffee the extra price which the shipper of flour gets for his bill. The people cannot pay these increased expenses—hence the decline in the imports. If this extra paper value of exports is deducted from the apparent \$20,000,000 of domestic produce shipped, it will be seen that the real amount applicable to the payment of \$13,413,000 of imports is only \$15,000,000, which hardly covers the amount—leaving for interest on stocks, government naval and diplomatic expenses, remittances of capital for stocks sold on foreign account, and the large bill for Americans traveling abroad, a round sum to be sent in specie, and the amount of the metals forwarded has accordingly been large. It is no doubt the case that the fears created by the operations of the Confederate steamer "290," in destroying so many American vessels, retarded shipments and raised the cost of freight in foreign bottoms. The shipments of specie are made mostly in the British steamers, which are not supposed liable to capture. The comparative shipments of specie have been as follows:

## SPECIE AND PRICE OF GOLD.

|            | 1861.       |           |           |           | 1862.         |                |
|------------|-------------|-----------|-----------|-----------|---------------|----------------|
|            | Received.   | Exported. | Received. | Exported. | Gold in bank. | Price of gold. |
| Jan. 4...  | .....       | .....     | .....     | \$442,147 | \$28,983,878  | 2 a 4 prem.    |
| " 11...    | \$1,445,385 | .....     | \$865,928 | 1,085,025 | 25,373,070    | 4 a 5 "        |
| " 18...    | 1,446,219   | .....     | .....     | 547,708   | 26,120,859    | 4 a 4½ "       |
| " 25...    | 1,246,029   | \$22,855  | 627,767   | 322,918   | 26,698,728    | 2 a 3½ "       |
| Feb. 1...  | 1,514,154   | 289,669   | .....     | 810,484   | 27,479,533    | 3½ a 3½ "      |
| " 9...     | 1,052,813   | 115,698   | 854,000   | 978,235   | 28,196,666    | 3½ a 3½ "      |
| " 15...    | 1,056,426   | 117,101   | 614,146   | 1,156,154 | 28,114,148    | 4 a 4½ "       |
| " 22...    | .....       | 187,253   | 759,247   | 734,512   | 28,275,992    | 3 a 3½ "       |
| March 1... | 855,755     | 176,161   | 741,109   | 510,774   | 29,826,959    | 2 a 2½ "       |
| " 8...     | .....       | .....     | 679,075   | 585,236   | 30,436,644    | 1½ a 2½ "      |
| " 15...    | 815,524     | 123,316   | 677,058   | 477,335   | 30,773,050    | 2 a 1½ "       |
| " 22...    | .....       | 91,161    | .....     | 540,968   | 32,028,390    | 1½ a 1½ "      |
| " 29...    | 699,597     | 6,088     | 490,368   | 779,564   | 32,841,862    | 1½ a 1½ "      |
| April 5... | 996,445     | 628,708   | 581,292   | 678,826   | 33,764,382    | 1½ a 1 " "     |
| " 12...    | 1,110,231   | 323,906   | .....     | 1,505,728 | 34,594,668    | 1½ a 2½ "      |
| " 19...    | .....       | 328,127   | 617,279   | 698,432   | 34,671,528    | 2 a 1½ "       |
| " 26...    | 844,577     | 1,000     | 685,546   | 1,151,800 | 35,297,944    | 1½ a 1½ "      |
| May 2...   | .....       | 800       | 410,804   | 712,275   | 35,175,828    | 2½ a 3½ "      |
| " 9...     | 868,600     | 27,695    | 484,019   | 1,574,166 | 32,239,868    | 3½ a 3½ "      |
| " 17...    | 755,102     | .....     | 604,682   | 1,093,081 | 30,280,697    | 3 a 3½ "       |
| " 24...    | 1,913,855   | .....     | 604,682   | 938,032   | 30,672,760    | 3½ a 3½ "      |
| " 31...    | 2,282,187   | 590       | 224,911   | 881,452   | 31,397,284    | 3½ a 3½ "      |

|            | 1861.      |           | 1862.            |            | Gold in bank. | Price of gold. |
|------------|------------|-----------|------------------|------------|---------------|----------------|
|            | Received.  | Exported. | Received.        | Exported.  |               |                |
| June 7...  | 1,618,876  | 650       | 553,035          | 1,647,299  | 31,284,882    | 3½ a 4½ "      |
| " 14...    | 617,361    | 18,976    | 352,391          | 1,990,327  | 31,162,048    | 4½ a 6½ "      |
| " 21...    | 986,143    | 222,546   | 612,461          | 3,156,988  | 31,047,945    | 6 a 6½ "       |
| " 28...    | .....      | 2,070     | 393,212          | 3,094,101  | 30,832,626    | 7 a 9½ "       |
| July 5...  | 811,268    | 2,200     | .....            | 2,647,060  | 31,790,519    | 9 a 10 "       |
| " 12...    | .....      | 1,588     | 641,451          | 2,424,916  | 32,098,174    | 9½ a 17 "      |
| " 19...    | 1,244,000  | 1,750     | 441,179          | 1,846,023  | 31,926,609    | 17 a 20 "      |
| " 27...    | .....      | 4,000     | .....            | 784,537    | 33,064,575    | 16½ a 17 "     |
| Aug. 2...  | 2,128,240  | 1,382     | Golden Gate lost | 748,523    | 34,022,490    | 14½ a 16 "     |
| " 9...     | .....      | .....     | 964,422          | 890,552    | 34,611,069    | 12½ a 13 "     |
| " 16...    | 941,081    | 700       | .....            | 700,431    | 35,801,778    | 14½ a 15 "     |
| " 23...    | 1,176,434  | 1,040     | 1,089,111        | 919,825    | 35,588,486    | 15 a 15½ "     |
| " 30...    | 757,629    | 9,280     | .....            | 1,137,644  | 35,640,984    | 15 a 16½ "     |
| Sept. 6... | 1,100,693  | 5,120     | 807,563          | 551,097    | 36,138,928    | 16½ a 18½ "    |
| " 13...    | .....      | 69,859    | .....            | 1,042,835  | 37,125,245    | 19 a 19½ "     |
| " 20...    | 953,340    | 11,150    | 934,415          | 490,895    | 37,868,037    | 17 a 17½ "     |
| " 27...    | .....      | .....     | 758,286          | 996,892    | 37,592,552    | 16 a 16½ "     |
| Oct. 4...  | 937,776    | 7,100     | .....            | 718,075    | 38,325,587    | 22½ a 22½ "    |
| " 11...    | .....      | 2,011     | 807,616          | 2,255,513  | 39,263,086    | 23½ a 24 "     |
| " 18...    | 1,011,707  | 3,921     | .....            | 1,714,551  | 38,759,256    | 33½ a 37½ "    |
| " 25...    | 1,026,332  | 2,006     | 768,121          | 2,024,380  | 37,453,531    | 27 a 31½ "     |
| Nov. 1...  | .....      | 2,981     | .....            | 351,547    | 37,980,436    | 31 a 31½ "     |
| " 8...     | 878,805    | 3,685     | .....            | 711,607    | 38,794,768    | 32½ a 32½ "    |
| " 15...    | 875,780    | 32,905    | 708,731          | 1,894,708  | 39,348,947    | 31½ a 32 "     |
| " 23...    | 829,807    | .....     | 921,207          | 2,458,529  | 33,110,216    | 30 a 30½ "     |
| Total..    | 36,790,571 | 3,303,018 | 21,169,626       | 55,384,015 | .....         | .....          |

The impulse given to shipments by the rise in the price of exchange in the month of October subsided with the reaction in the price of bills, but was resumed again in November, when the decline in bills and the rise in freights, accompanied by a considerable decline in the price of breadstuffs in England, checked the exports of produce. During the month of October the general average price of wheat in England fell from 53s. to 48s. per quarter, or 15 cents per bushel, making nearly 20 cents in the amount in paper to be drawn for. The price of wheat at the beginning of November was in England 24 cents less per bushel than at the same date of the previous year. The very large importations, particularly from America, were the cause of this decline. The quantity of wheat shipped to England this year in September 1 to November 18, is 9,132,417 bushels, or 4,028,659 greater than for the same period last year.

The rates of sterling bills have continued very high, governed by the price of gold and by the demand for remittance. The rates have been as follows:

#### RATES OF EXCHANGE.

|         | London.     | Paris.        | Amsterdam. | Frankfort. | Hamburg.  | Berlin.   |
|---------|-------------|---------------|------------|------------|-----------|-----------|
| Dec. 1, | 109 a 109½  | 5.25 a 5.15   | 40½ a 40½  | 41 a 41½   | 35½ a 36  | 73½ a 74  |
| " 15,   | 110½ a 110½ | 5.15 a 5.10   | 41½ a 41½  | 41½ a 42   | 36½ a 37  | 74 a 74   |
| Jan. 1, | 110½ a 118  | 5.12½ a 5.05  | 42 a 42½   | 42½ a 43   | 37½ a 38  | 74½ a 75½ |
| " 15,   | 118½ a 114  | 5.05 a 4.90   | 42½ a 43½  | 43½ a 43½  | 37½ a 38½ | 75½ a 76  |
| Feb. 1, | 118 a 113½  | 5.10 a 4.95   | 42½ a 43½  | 43½ a 43½  | 37 a 38½  | 75½ a 76½ |
| " 15,   | 115 a 115½  | 4.97½ a 4.90  | 42½ a 43½  | 43½ a 44   | 37½ a 38½ | 76½ a 77  |
| Mar 1,  | 112 a 118   | 5.05 a 5.00   | 42½ a 43   | 42½ a 43   | 37 a 37½  | 75½ a 75  |
| " 15,   | 112½ a 112½ | 5.07½ a 5.03½ | 42½ a 43   | 42½ a 43½  | 36½ a 37½ | 74½ a 75½ |
| " 22,   | 111 a 112½  | 5.08½ a 5.00½ | 42 a 42½   | 42½ a 42½  | 36½ a 37½ | 74 a 74½  |
| " 29,   | 111 a 112   | 5.10 a 5.05   | 42 a 42½   | 42½ a 42½  | 36½ a 37½ | 74 a 74½  |

|          | London.     | Paris.        | Amsterdam. | Frankfort. | Hamburg.  | Berlin.   |
|----------|-------------|---------------|------------|------------|-----------|-----------|
| Apr. 5,  | 111½ a 112½ | 5.07½ a 5.02½ | 42½ a 42½  | 42½ a 42½  | 36½ a 37½ | 74½ a 75  |
| " 12,    | 111½ a 112½ | 5.10 a 5.03½  | 42 a 42½   | 42½ a 42½  | 36½ a 37½ | 74½ a 74½ |
| " 19,    | 111½ a 112½ | 5.10 a 5.03½  | 41½ a 42½  | 42½ a 42½  | 36½ a 37½ | 74 a 74½  |
| " 26,    | 111½ a 112½ | 5.02½ a 5.07½ | 42½ a 42½  | 42½ a 42½  | 36½ a 37½ | 74½ a 74½ |
| May 2,   | 112½ a 113½ | 4.97½ a 5.02½ | 42½ a 42½  | 42½ a 47½  | 37 a 37½  | 74½ a 74½ |
| " 10,    | 118 a 114   | 4.91½ a 5.02½ | 42½ a 48   | 42½ a 48½  | 37½ a 37½ | 75 a 75½  |
| " 17,    | 118 a 114   | 4.96½ a 5.00  | 42½ a 48   | 42½ a 48½  | 37½ a 38  | 75 a 75½  |
| " 24,    | 114½ a 115  | 4.92½ a 5.00  | 42½ a 48   | 48 a 48½   | 37½ a 38  | 75½ a 75½ |
| " 31,    | 114 a 114½  | 4.95½ a 4.91½ | 42½ a 48½  | 48½ a 48½  | 37½ a 38½ | 75½ a 76  |
| June 7,  | 114 a 115   | 4.95 a 4.91   | 48 a 48½   | 48½ a 48½  | 37½ a 38½ | 75½ a 76  |
| " 14,    | 117½ a 118  | 4.75 a 4.82   | 48½ a 44½  | 44½ a 45   | 39 a 39½  | 76½ a 77½ |
| " 26,    | 120½ a 121  | 4.70 a 4.66   | 44½ a 45   | 45 a 45½   | 40 a 40½  | 78 a 78½  |
| July 6,  | 120 a 122   | 4.70 a 4.62½  | 55½ a 45½  | 45 a 45½   | 45 a 45½  | 79 a 79½  |
| " 12,    | 127 a 129   | 4.83½ a 4.81½ | 48 a 49    | 48 a 49    | 42½ a 48½ | 84½ a 86½ |
| " 19,    | 128½ a 131  | 4.87½ a 4.82½ | 48½ a 49   | 48½ a 49   | 43 a 44   | 86½ a 87½ |
| " 27,    | 126 a 129   | 4.45 a 4.85   | 47½ a 48½  | 48 a 48½   | 41½ a 42½ | 85½ a 86½ |
| Aug. 2,  | 125 a 127   | 4.52 a 4.55   | 47½ a 48½  | 47½ a 48½  | 41½ a 42  | 82 a 83   |
| " 9,     | 124 a 126   | 4.55 a 4.47½  | 47 a 47½   | 47½ a 47½  | 41 a 42   | 82 a 82½  |
| " 16,    | 126½ a 127½ | 4.45 a 4.40   | 47½ a 47½  | 47½ a 48   | 42 a 42½  | 83 a 83½  |
| " 23,    | 126½ a 128  | 4.45 a 4.40   | 47½ a 47½  | 47½ a 48   | 41½ a 41½ | 82½ a 83½ |
| " 30,    | 126½ a 127½ | 4.45 a 4.40   | 47½ a 47½  | 47½ a 48   | 42 a 42½  | 83½ a 84  |
| Sept. 6, | 128½ a 130  | 4.36½ a 4.32½ | 48½ a 49   | 48½ a 49½  | 42½ a 48  | 85 a 85½  |
| " 13,    | 126½ a 131  | 4.36½ a 4.30  | 48½ a 49½  | 49 a 49½   | 42½ a 48½ | 85½ a 86½ |
| " 20,    | 128½ a 129½ | 4.42 a 4.35   | 48½ a 48½  | 48½ a 48½  | 42½ a 42½ | 85 a 85½  |
| " 27,    | 128½ a 129½ | 4.40 a 4.32   | 48½ a 49   | 48½ a 49   | 42½ a 48  | 85½ a 86  |
| Oct. 4,  | 134½ a 135½ | 4.20 a 4.15   | 50½ a 51½  | 50½ a 51   | 44½ a 45  | 88 a 89   |
| " 11,    | 137½ a 142½ | 4.12 a 4.00   | 51½ a 58   | 52½ a 58½  | 46 a 47   | 92 a 94   |
| " 18,    | 148 a 152   | 4.90 a 3.90   | 58 a 52    | 52 a 58    | 46 a 47   | 91 a 93   |
| " 25,    | 143 a 145½  | 3.90 a 3.85   | 54½ a 55   | 54½ a 55   | 48 a 47½  | 95½ a 96½ |
| Nov. 1,  | 143½ a 145½ | 3.95 a 3.86½  | 54½ a 55   | 54½ a 55½  | 47½ a 48½ | 97 a 97½  |
| " 8,     | 145½ a 147  | 3.87½ a 3.82½ | 55½ a 56½  | 55½ a 56   | 48½ a 48½ | 97 a 97½  |
| " 15,    | 145½ a 145½ | 3.87½ a 3.82½ | 55½ a 55½  | 55½ a 56   | 48 a 48½  | 97 a 97½  |
| " 23,    | 143½ a 144½ | 3.97½ a 3.90  | 54½ a 55   | 54½ a 55½  | 47½ a 48½ | 96½ a 96½ |

The rate of sterling bills remaining about 13 per cent above the price of gold, gives a high rate for the bills as measured in specie. The mode of quoting sterling gives rise to much misconception in relation to the exchange. Thus, the actual par of American for British gold is \$4 84 for a pound sterling, that is to say, the exact quantity of pure gold in \$4 84, is the same as in a sovereign, or \$4.844 gold dollars melted and coined would make exactly 1,000 sovereigns, that is the actual par; but custom has continued to call the £ \$4 44, which was its value in Spanish silver before there was any American coin. With the change in the American coins, 9½ per cent added upon the old dollar, \$4 44 is called the *par*. The price of bills at 145s., gives \$6 44 as the price in paper of the £, which is \$4 84 in gold. Hence the paper in which the quotation is made, has depreciated 26 per cent. On Paris the quotation is different, the *par* is 5 francs 19 centimes for \$1 in gold, but the French will now only give 3 francs 85 centimes for one paper dollar, a decline of 1 franc 34 centimes or 26 per cent. In this case there is no fictitious premium on gold or exchange, but the real decline of 26 per cent in the value of the paper used here as a currency, and with that decline the precious metals become daily scarcer. The disgraceful proceedings of the Board of Brokers, in stopping transactions in gold at the board, at the wish of the Secretary of the Treasury, who weakly imagined he could make his paper promises valuable by keeping gold out of sight, has been recinded, and gold is now not only dealt in as before, but is speculated in on time.



The effort seems to be, by making very large time sales of gold at 30 @ 60 days, to fictitiously depress the market up to the time of the meeting of Congress, when the financial report shall have been made. The effort is so manifestly ruinous to individuals, that is hardly to be supposed they would engage in it, unless very ample guaranties were behind them. The gold was restored to the banks on the 17th, and in four days \$900,000 was sold, one-half on time, by persons who did not hold it. The exporters took the time sales, and as it is delivered to them it will leave the country. The "short sales" of the gold are therefore a premium to export it. When the gold can be had at a low rate, bills are lower, and consequently there is less disposition to ship produce. Hence, all the loss sustained by attempting to get down the price of gold for political effect, is actually a premium paid to cause it to rise at a later period. The high rate of gold seemed to alarm the department in relation to the flood of paper, and it was resolved to issue the \$13,500,000 three-year' 7 $\frac{1}{2}$  bonds that remained of the \$150,000,000, which were authorized, and of which the banks took \$100,000,000 at par for specie. The amount of bids for the lot was \$23,500,000, and the award was made at an average of 3 $\frac{1}{2}$  per cent; the range of bids was 3.05 @ 4 per cent. The market price for the day was 104. The Secretary had these notes on hand a year, and did not issue them, but continued to pay out paper money. The rate of money in the market was very low all the Fall, although the speculation in stocks had absorbed a good deal, but when the Secretary was ready to sell his bonds, he, with singular fatuity, went first to the banks and borrowed the amount in advance. To lend him the sum, the banks called in loans, and disturbed the market so as to cause a rise in the value of money, at the very moment when it was to the interest of the Treasury that it should be cheap. The real price of the loan, as compared with that taken by the banks last year, was 77 per cent, or 23 per cent less than last year. An English or Canadian capitalist, who might last year have bought the bonds for 100, would this year get them for 77. The general price of stocks has been as follows:

## PRICES UNITED STATES PAPER.

|        |         | —6's, 1861.—      |                   | 5's, 1874.       | 7 3-10, 8 years.  | 6 p. c. certif. 1 year. | Gold.            | August demand notes. |
|--------|---------|-------------------|-------------------|------------------|-------------------|-------------------------|------------------|----------------------|
|        |         | Reg.              | Coup.             |                  |                   |                         |                  |                      |
| May    | 10..... | 108 $\frac{1}{2}$ | 108               | 94               | 104               | 99 $\frac{1}{2}$        | 2 $\frac{1}{2}$  | $\frac{1}{2}$        |
| "      | 17..... | 105               | 105               | 96               | 105               | 100 $\frac{1}{2}$       | 3                | $\frac{1}{2}$        |
| "      | 23..... | 104 $\frac{1}{2}$ | 104 $\frac{1}{2}$ | 96               | 105               | 100 $\frac{1}{2}$       | 3 $\frac{1}{2}$  | $\frac{1}{2}$        |
| "      | 31..... | 104 $\frac{1}{2}$ | 104 $\frac{1}{2}$ | 96               | 105               | 100                     | 3 $\frac{1}{2}$  | $\frac{1}{2}$        |
| June   | 7.....  | 103               | 106               | 96               | 106 $\frac{1}{2}$ | 100 $\frac{1}{2}$       | 4 $\frac{1}{2}$  | 1                    |
| "      | 14..... | 103 $\frac{1}{2}$ | 107 $\frac{1}{2}$ | 97 $\frac{1}{2}$ | 106 $\frac{1}{2}$ | 100 $\frac{1}{2}$       | 6 $\frac{1}{2}$  | 3                    |
| "      | 26..... | 102 $\frac{1}{2}$ | 106 $\frac{1}{2}$ | 96 $\frac{1}{2}$ | 105 $\frac{1}{2}$ | 99 $\frac{1}{2}$        | 9                | 4 $\frac{1}{2}$      |
| July   | 5.....  | 100 $\frac{1}{2}$ | 100 $\frac{1}{2}$ | 95               | 102               | 98 $\frac{1}{2}$        | 10               | 5 $\frac{1}{2}$      |
| "      | 12..... | 100               | 100 $\frac{1}{2}$ | 88               | 103               | 99                      | 17               | 7 $\frac{1}{2}$      |
| "      | 19..... | 98                | 98                | 85               | 101 $\frac{1}{2}$ | 97 $\frac{1}{2}$        | 19               | 8                    |
| "      | 27..... | 99                | 99                | 86 $\frac{1}{2}$ | 103               | 98 $\frac{1}{2}$        | 17               | 6 $\frac{1}{2}$      |
| August | 2.....  | 98 $\frac{1}{2}$  | 98 $\frac{1}{2}$  | 85 $\frac{1}{2}$ | 102 $\frac{1}{2}$ | 98 $\frac{1}{2}$        | 15               | 5 $\frac{1}{2}$      |
| "      | 9.....  | 99                | 100               | 85 $\frac{1}{2}$ | 103 $\frac{1}{2}$ | 100                     | 12 $\frac{1}{2}$ | 5 $\frac{1}{2}$      |
| "      | 16..... | 100 $\frac{1}{2}$ | 100 $\frac{1}{2}$ | 90               | 100               | 100                     | 15               | 7 $\frac{1}{2}$      |
| "      | 23..... | 101               | 101               | 90               | 104               | 99 $\frac{1}{2}$        | 15 $\frac{1}{2}$ | 8                    |
| "      | 30..... | 101 $\frac{1}{2}$ | 101 $\frac{1}{2}$ | 90               | 104 $\frac{1}{2}$ | 100                     | 16 $\frac{1}{2}$ | 8 $\frac{1}{2}$      |
| Sept.  | 6.....  | 99 $\frac{1}{2}$  | 99 $\frac{1}{2}$  | 88 $\frac{1}{2}$ | 103 $\frac{1}{2}$ | 99                      | 18 $\frac{1}{2}$ | 8                    |
| "      | 13..... | 99 $\frac{1}{2}$  | 99 $\frac{1}{2}$  | 88 $\frac{1}{2}$ | 103               | 98 $\frac{1}{2}$        | 19 $\frac{1}{2}$ | 8 $\frac{1}{2}$      |
| "      | 20..... | 102               | 102               | 90               | 104 $\frac{1}{2}$ | 99                      | 17               | 12 $\frac{1}{2}$     |
| "      | 26..... | 101 $\frac{1}{2}$ | 101 $\frac{1}{2}$ | 90 $\frac{1}{2}$ | 104 $\frac{1}{2}$ | 99 $\frac{1}{2}$        | 20 $\frac{1}{2}$ | 16 $\frac{1}{2}$     |

|         |         | 5 <sup>h</sup> , 1861. |                   | 5 <sup>h</sup> , 1874. | 7 3-10,<br>3 years. | 6 p. c. certif.<br>1 year. | August<br>demand<br>notes. |
|---------|---------|------------------------|-------------------|------------------------|---------------------|----------------------------|----------------------------|
|         |         | Reg.                   | Coup.             |                        |                     |                            | Gold.                      |
| October | 4.....  | 104 $\frac{1}{2}$      | 104 $\frac{1}{2}$ | 94                     | 105 $\frac{1}{2}$   | 94                         | 19 $\frac{1}{2}$           |
| "       | 11..... | 104                    | 104               | 92 $\frac{1}{2}$       | 105                 | 99 $\frac{1}{2}$           | 22 $\frac{1}{2}$           |
| "       | 18..... | 104                    | 104               | 92 $\frac{1}{2}$       | 106                 | 99 $\frac{1}{2}$           | 23 $\frac{1}{2}$           |
| "       | 25..... | 103                    | 103               | 93                     | 105                 | 99                         | 29                         |
| Nov.    | 1.....  | 104                    | 104 $\frac{1}{2}$ | 98 $\frac{1}{2}$       | 105 $\frac{1}{2}$   | 99 $\frac{1}{2}$           | 31                         |
| "       | 8.....  | 103 $\frac{1}{2}$      | 103 $\frac{1}{2}$ | 92 $\frac{1}{2}$       | 103 $\frac{1}{2}$   | 98                         | 27                         |
| "       | 15..... | 103 $\frac{1}{2}$      | 103 $\frac{1}{2}$ | 91 $\frac{1}{2}$       | 104                 | 98                         | 26 $\frac{1}{2}$           |
| "       | 23..... | 103 $\frac{1}{2}$      | 103 $\frac{1}{2}$ | 91                     | 104                 | 98                         | 24 $\frac{1}{2}$           |

The rate of money rose under this loan operation to 6 @ 7 on "call." The bank returns in another column indicate that loans increased and the deposits diminished under the transaction. It will be borne in mind that, gold being no longer currency, all the operations of the banks are based on the legal tender notes, and they are therefore compelled to keep a reserve of those notes on hand, and this absorbs a large amount. It is also to be borne in mind that the rise in prices has of itself swollen the sum of the deposits, and the amount of the loans. The shape in which the finances will come before Congress is matter of great solicitude. There are many projects of improving the finances of the government by changing the descriptions of paper to be issued and the mode of borrowing,—as if borrowing in any shape was a remedy for a deficient treasury. The idle boast of Mr. CHASE, that his paper money is a loan "without interest" from the people, comes home with melancholy force to the hearthstones of the poor, who, in the extra price of fuel and food, are paying with their heart's blood for the use of that money. The number of men in the army has been estimated at 800,000. If half of them have families, and those families consume the usual estimate of one barrel of flour per annum each, then those families alone pay \$600,000 per annum tax on the single article of flour, which the shipper sells in Liverpool for \$1 50 per barrel less than in New York. The pay of the soldier is fixed at \$13 per month, while, by the use of the paper money, all the articles they buy with it have risen 30 per cent. In other words, the soldiers alone pay \$30,000,000 per annum tax on Mr. CHASE's loan without interest.

There is only one way in which the sorrowful course of this paper money can be retraced, and that is, by a truthful statement of the present amount of debt and a clear statement of current expenditures—to present the exact facts to Congress and to the public. The next step is to impose taxes to the *whole amount* of the current expenditure, and then fund the existing outstanding paper at any price to get it out of the market. No observing man dreams that the debt is at this moment less than \$1,200,000,000, notwithstanding the statements made by Mr. CHASE and others. That sum cannot be placed under 8 per cent, and will cost, with the sinking fund, over \$100,000,000 per annum, which must be raised by taxes, in addition to the \$800,000,000 per annum of war and ordinary expenses. Last year the report of Mr. CHASE caused the banks to suspend, because it destroyed confidence. That confidence has shown no disposition to revive under the system of false statements and concealments, in violation of law, that has been practised in relation to the public debt. The time is now fast approaching when nothing will stand between the government and financial ruin but a thorough system of honest taxation.

## JOURNAL OF BANKING, CURRENCY, AND FINANCE.

1. BANK RETURNS OF NEW YORK STATE. 2. CITY WEEKLY BANK RETURNS. 3. MASSACHUSETTS BANK RETURNS. 4. PENNSYLVANIA BANK RETURNS. 5. RHODE ISLAND BANK RETURNS. 6. NEW JERSEY BANKS. 7. NEW HAMPSHIRE BANKS. 8. BANK OF ENGLAND. 9. AMERICAN CURRENCY IN CANADA. 10. CIRCULAR TO COLLECTORS OF CUSTOMS.

## BANK RETURNS OF NEW YORK STATE.

We are able to give this month the quarterly returns of the banks of New York State, which show remarkable changes during the past year. For instance, it will be seen that on September 28, 1862, the circulation had since September, 1861, increased nearly \$10,000,000, and that the deposits had increased \$75,000,000. Truly we might be said to be growing rich if paper were money! The following shows the movement of the State banks for the year, in respect to five principal items of their respective reports:

| Date.            | Circulation. | Deposits.     | Specie.      | Discounts.    | Stocks and government notes. |
|------------------|--------------|---------------|--------------|---------------|------------------------------|
| September, 1861. | \$28,015,748 | \$111,895,016 | \$38,089,727 | \$176,055,848 | .....                        |
| March, 1862.     | 28,330,973   | 121,988,259   | 34,301,092   | 162,017,987   | .....                        |
| June, 1862.      | 33,727,382   | 150,438,244   | 32,882,693   | 184,501,261   | 64,838,009                   |
| September, 1862. | 37,567,378   | 186,390,795   | 39,283,981   | 165,584,063   | 107,116,775                  |

The following are the returns at large for the last two quarters:

## QUARTERLY REPORTS OF THE BANKS OF THE STATE OF NEW YORK FOR JUNE AND SEPTEMBER, 1862.

## RESOURCES.

|                              | June 28, 1862.       | September 27, 1862.  |
|------------------------------|----------------------|----------------------|
| Loans and discounts.....     | \$184,501,261        | \$165,583,063        |
| Overdrafts.....              | \$1,309 and 431,799  | \$1,071 and 507,511  |
| Due from banks .....         | 21,720,212           | 24,071,691           |
| Due from directors..         | 6,235,525            | 6,131,205            |
| Due from brokers..           | 8,341,576            | 9,271,652            |
| Real estate .....            | 10,000 and 9,609,059 | 11,200 and 9,592,765 |
| Specie .....                 | 32,822,693           | 39,283,981           |
| Cash items.....              | 34,429,278           | 38,121,185           |
| Stock and promissory notes.. | 64,838,009           | 107,116,775          |
| Bonds & mortgages..          | 82,000 and 6,859,710 | 6,636,935            |
| Bills of solvent banks.....  | 9,969,253            | 25,172,874           |
| Bills of suspended banks..   | 83 and 938           | 114 and 768          |
| Loss and expense account.... | 1,197,087            | 901,651              |
| Add for cents .....          | 902                  | 943                  |
| Total resources .....        | \$366,380,201        | \$416,990,142        |

## LIABILITIES.

|                                                                 | (June 30, 1862.) | (Sept. 30, 1862.) |
|-----------------------------------------------------------------|------------------|-------------------|
| Capital.....                                                    | \$108,682,708    | \$108,606,062     |
| Circulation.....                                                | 33,727,708       | 37,557,373        |
| Profits.....                                                    | 14,721,695       | 14,288,874        |
| Due banks.....                                                  | 50,569,676       | 60,421,247        |
| Due individuals and corporations<br>other than banks, etc.....  | 1,676,746        | 1,800,115         |
| Due treasurer of the State of N. Y.                             | 3,881,798        | 5,845,681         |
| Due depositors on demand.....                                   | 150,438,244      | 186,390,795       |
| Due to others not included in either<br>of the above heads..... | 2,681,449        | 2,079,504         |
| Add for cents.....                                              | 508              | 491               |
| Total liabilities.....                                          | \$366,380,201    | \$416,990,142     |

In June 302 banks were in operation and all reported, but in September 306 banks reported, including J. A. CLARK & Co.'s Bank, Pulaski; JOSHUA PRATT & Co.'s Bank, Clinton; Q. W. WELLINGTON & Co.'s Bank, Co. ning, and T. O. GRANNIS & Co.'s Bank, Utica, (new banks, reporting for the first time.) The Bank of Ontario, Canandaigua, and R. I. INGERSOLL's & Co.'s Bank, Pulaski, have commenced business since the 27th September.

We also give below the September returns of the city banks for each quarter of the past year:

## QUARTERLY RETURNS OF THE BANKS OF THE CITY OF NEW YORK FROM SEPTEMBER, 1861 TO SEPTEMBER, 1862.

## LIABILITIES.

|                          | Sept., 1861.  | March, 1862.  | June, 1862.   | Sept., 1862.  |
|--------------------------|---------------|---------------|---------------|---------------|
| Capital.....             | \$69,650,605  | \$69,051,605  | \$69,125,660  | \$69,125,820  |
| Net profits.....         | 7,608,579     | 6,878,711     | 8,647,645     | 8,571,885     |
| Circulation.....         | 8,684,895     | 5,870,885     | 8,962,281     | 9,785,098     |
| Due other banks.....     | 22,725,112    | 30,480,184    | 41,848,303    | 50,395,756    |
| Individual deposits..... | 88,252,466    | 92,061,137    | 112,195,094   | 139,988,704   |
| Miscellaneous.....       | 6,488,341     | 1,691,400     | 2,242,066     | 3,936,638     |
| Total liabilities.....   | \$198,849,998 | \$205,983,872 | \$248,021,549 | \$281,795,501 |

## RESOURCES.

|                          | Sept., 1861.  | March, 1862.  | June, 1862.   | Sept., 1862.  |
|--------------------------|---------------|---------------|---------------|---------------|
| Loans.....               | \$113,810,543 | \$98,536,943  | \$118,540,094 | \$93,478,350  |
| Stocks, etc.....         | 23,198,577    | 44,906,265    | 42,568,120    | 80,462,853    |
| Bonds and mortgages..... | 617,677       | 611,900       | 664,227       | 538,918       |
| Real estate.....         | 6,501,524     | 6,748,468     | 6,759,954     | 6,758,876     |
| Due by banks.....        | 4,299,093     | 4,164,459     | 3,915,897     | 4,894,178     |
| Cash items.....          | 13,742,440    | 19,865,119    | 40,095,670    | 58,444,613    |
| Specie.....              | 36,118,215    | 31,087,652    | 30,406,556    | 37,165,871    |
| Assets, etc.....         | 61,929        | 62,566        | 71,081        | 52,142        |
| Total resources.....     | \$198,849,998 | \$205,983,872 | \$248,021,549 | \$281,795,501 |

The following is our usual table of the weekly returns of the New York city banks:

## CITY WEEKLY BANK RETURNS.

New York Banks. (*Capital, Jan., 1862, \$69,493,577; Jan., 1861, \$69,890,475.*)

| Date.            | Loans.        | Specie.      | Circulation. | Net Deposits. | Clearings.    |
|------------------|---------------|--------------|--------------|---------------|---------------|
| January 4,.....  | \$154,415,826 | \$23,933,878 | \$8,586,186  | \$111,789,233 | \$100,642,429 |
| " 11,.....       | 152,088,012   | 25,373,070   | 8,121,512    | 113,889,762   | 105,654,811   |
| " 18,.....       | 149,081,433   | 26,120,859   | 7,869,028    | 113,327,160   | 107,732,780   |
| " 25,.....       | 146,767,680   | 26,698,728   | 6,828,617    | 110,874,786   | 100,001,959   |
| February 1,..... | 144,675,778   | 27,479,583   | 6,404,951    | 112,057,003   | 93,791,629    |
| " 8,.....        | 143,803,890   | 28,196,666   | 6,077,417    | 110,637,557   | 113,216,297   |
| " 15,.....       | 141,994,192   | 28,114,148   | 5,762,506    | 110,430,476   | 105,102,177   |
| " 22,.....       | 139,950,958   | 28,875,992   | 5,489,496    | 109,079,076   | 111,346,066   |
| March 1,.....    | 137,674,238   | 29,826,959   | 5,363,944    | 107,974,499   | 109,854,823   |
| " 8,.....        | 133,055,148   | 30,436,644   | 5,869,206    | 103,715,728   | 113,512,576   |
| " 15,.....       | 130,622,776   | 30,773,050   | 5,904,866    | 100,296,704   | 118,957,978   |
| " 22,.....       | 127,615,306   | 32,023,390   | 6,260,309    | 97,601,279    | 115,376,381   |
| " 29,.....       | 125,021,630   | 32,841,302   | 6,758,313    | 94,428,071    | 106,973,432   |
| April 5,.....    | 124,477,484   | 33,764,382   | 7,699,641    | 94,082,625    | 111,836,384   |
| " 12,.....       | 123,412,491   | 34,594,668   | 8,064,843    | 93,759,063    | 114,788,013   |
| " 19,.....       | 123,070,263   | 34,671,528   | 8,064,663    | 95,179,340    | 113,529,377   |
| " 26,.....       | 125,086,826   | 35,297,944   | 8,118,571    | 101,897,435   | 124,396,733   |
| May 3,.....      | 133,406,418   | 35,175,828   | 8,482,782    | 109,634,535   | 140,952,471   |
| " 10,.....       | 133,948,211   | 32,289,868   | 8,830,321    | 115,559,206   | 181,112,537   |
| " 17,.....       | 142,290,732   | 30,250,697   | 8,727,323    | 120,003,929   | 167,890,055   |
| " 24,.....       | 142,950,149   | 30,672,760   | 8,592,676    | 122,602,864   | 142,828,565   |
| " 31,.....       | 142,671,414   | 31,397,284   | 8,535,149    | 125,434,755   | 136,893,373   |
| June 7,.....     | 142,318,381   | 31,248,882   | 8,813,603    | 125,566,961   | 148,123,103   |
| " 14,.....       | 144,014,360   | 31,162,046   | 8,814,322    | 125,643,375   | 165,521,454   |
| " 21,.....       | 146,839,762   | 31,047,945   | 8,849,133    | 126,684,422   | 168,059,995   |
| " 28,.....       | 148,346,422   | 30,832,626   | 8,910,344    | 127,860,703   | 154,890,447   |
| July 5,.....     | 148,643,718   | 31,790,519   | 9,270,315    | 127,496,534   | 149,748,923   |
| " 12,.....       | 147,997,436   | 32,098,174   | 9,212,397    | 127,538,055   | 167,789,726   |
| " 19,.....       | 148,827,423   | 31,926,609   | 9,155,301    | 129,485,977   | 161,066,594   |
| " 26,.....       | 149,768,293   | 33,064,575   | 9,244,953    | 132,427,178   | 162,650,811   |
| August 2,.....   | 150,517,844   | 34,022,490   | 9,311,868    | 137,112,937   | 149,167,638   |
| " 9,.....        | 151,190,203   | 34,611,069   | 9,221,504    | 139,544,680   | 139,926,277   |
| " 16,.....       | 152,328,731   | 35,301,773   | 9,237,206    | 142,034,051   | 139,796,908   |
| " 23,.....       | 154,855,704   | 35,588,486   | 9,356,635    | 143,347,341   | 147,659,087   |
| " 30,.....       | 153,278,552   | 35,640,982   | 9,454,806    | 141,971,741   | 150,875,167   |
| Sept. 6,.....    | 153,435,859   | 36,138,923   | 9,645,965    | 142,663,036   | 154,074,880   |
| " 13,.....       | 157,328,513   | 37,125,245   | 9,719,126    | 144,991,062   | 155,313,245   |
| " 20,.....       | 158,299,288   | 37,863,037   | 9,789,060    | 148,680,453   | 179,681,651   |
| " 27,.....       | 160,161,046   | 37,592,551   | 9,800,723    | 153,291,851   | 196,879,068   |
| Oct. 4,.....     | 165,067,113   | 38,325,587   | 9,900,112    | 157,944,771   | 239,013,452   |
| " 11,.....       | 169,675,009   | 39,263,086   | 9,880,050    | 162,965,264   | 243,083,030   |
| " 18,.....       | 172,512,085   | 38,759,256   | 9,907,529    | 164,337,458   | 255,444,122   |
| " 25,.....       | 174,379,346   | 37,453,531   | 9,878,240    | 164,497,972   | 245,940,203   |
| Nov. 1,.....     | 176,847,576   | 37,980,436   | 9,848,267    | 167,435,267   | 213,246,542   |
| " 8,.....        | 176,700,515   | 38,794,768   | 9,732,860    | 165,959,654   | 214,294,318   |
| " 15,.....       | 178,786,633   | 39,348,947   | 9,840,991    | 164,066,604   | 234,494,032   |

## MASSACHUSETTS BANK RETURNS.

We give below a comparative table of the returns of the Massachusetts banks out of Boston. There is, in the returns, an increase in the circulation of \$5,979,655 since April last. The circulation of all the Massachusetts banks, compared with the circulation of April last, is as follows:

|                           | Bank out of Boston. | Boston banks. | Total.       |
|---------------------------|---------------------|---------------|--------------|
| November 1, 1862 .....    | \$19,742,483        | \$7,816,700   | \$27,559,183 |
| April 1, 1862.....        | 13,762,728          | 5,908,272     | 19,671,000   |
| Increase of circulation.. | \$5,979,655         | \$1,908,428   | \$7,888,183  |

We add the returns of the banks out of Boston from April.

MASSACHUSETTS BANKS OUT OF BOSTON. (*Capital, \$29,412,500.*)

| Date.        | Loans & discounts. | Circulation. | Specie.     | Deposits.   |
|--------------|--------------------|--------------|-------------|-------------|
| April 5..... | \$46,813,869       | \$13,762,728 | \$1,891,489 | \$8,379,656 |
| May 3.....   | 47,269,010         | 14,928,237   | 1,914,578   | 8,686,551   |
| July 5.....  | 46,997,940         | 15,409,675   | 1,825,069   | 9,881,569   |
| Aug. 2.....  | 48,847,127         | 17,387,587   | 1,815,116   | 10,705,931  |
| " 30.....    | 49,988,342         | 18,158,753   | 1,798,363   | 11,343,177  |
| Oct. 4.....  | 51,680,751         | 19,742,483   | 1,766,376   | 12,351,544  |

The following are the returns of the Boston banks from January 6th to November 17th:

BOSTON BANKS. (*Capital, Jan., 1862, \$38,231,700; Jan., 1861, \$38,231,700.*)

| Date.       | Loans.       | Specie.     | Circulation. | Deposits.    | Due to banks. | Due from banks. |
|-------------|--------------|-------------|--------------|--------------|---------------|-----------------|
| Jan. 6....  | \$65,612,997 | \$8,920,486 | \$6,451,587  | \$27,098,889 | \$9,187,924   | \$8,701,878     |
| " 13....    | 64,704,039   | 8,580,607   | 6,612,512    | 25,642,994   | 9,684,227     | 8,805,255       |
| " 20....    | 64,409,585   | 8,585,277   | 6,549,871    | 25,441,327   | 9,547,319     | 9,018,888       |
| " 27....    | 63,025,191   | 8,562,175   | 6,284,268    | 24,080,776   | 9,593,545     | 8,727,348       |
| Feb 3, ..   | 62,628,793   | 8,529,483   | 6,260,299    | 23,500,321   | 9,727,788     | 8,766,415       |
| " 10....    | 62,340,600   | 8,514,800   | 6,616,000    | 22,784,700   | 9,892,600     | 8,965,500       |
| " 17....    | 62,587,788   | 8,410,390   | 6,469,309    | 22,034,794   | 9,653,725     | 8,315,887       |
| " 24....    | 62,053,640   | 8,341,588   | 6,580,205    | 21,515,228   | 9,625,869     | 8,644,360       |
| Mar. 3,...  | 61,678,500   | 8,364,500   | 6,318,700    | 21,208,500   | 9,681,500     | 8,982,600       |
| " 10....    | 61,834,500   | 8,409,585   | 6,693,139    | 20,740,208   | 9,906,110     | 8,450,721       |
| " 17....    | 61,747,000   | 8,471,000   | 6,364,800    | 20,554,000   | 9,790,000     | 7,981,000       |
| " 24....    | 61,655,420   | 8,441,058   | 6,219,512    | 20,326,087   | 9,715,266     | 7,669,531       |
| " 31....    | 61,360,789   | 8,441,196   | 5,908,272    | 19,975,018   | 9,434,782     | 6,978,527       |
| Apr. 7....  | 61,208,974   | 8,674,170   | 6,557,152    | 21,014,000   | 9,245,088     | 8,133,124       |
| Apr. 14.... | 61,058,969   | 8,688,578   | 6,170,383    | 21,009,010   | 8,949,259     | 7,173,374       |
| " 21....    | 61,019,787   | 8,679,356   | 5,924,906    | 21,570,017   | 8,529,277     | 6,946,164       |
| " 28....    | 60,441,452   | 8,666,797   | 5,500,396    | 22,402,184   | 8,493,004     | 7,313,530       |
| May 5....   | 59,805,545   | 8,598,990   | 5,453,815    | 23,823,199   | 8,555,206     | 6,998,508       |
| " 12....    | 59,521,251   | 8,422,738   | 5,537,937    | 24,827,121   | 9,197,744     | 11,755,589      |
| " 19....    | 60,059,635   | 8,304,534   | 5,602,844    | 25,792,916   | 9,614,737     | 12,105,850      |
| " 26....    | 60,266,275   | 8,108,695   | 5,503,756    | 26,264,656   | 10,029,198    | 13,795,636      |
| June 2....  | 60,677,367   | 8,089,723   | 6,348,138    | 26,730,486   | 10,226,491    | 13,924,896      |
| " 9....     | 62,059,198   | 7,983,425   | 5,696,413    | 26,277,021   | 10,610,702    | 12,888,043      |
| " 16....    | 62,591,341   | 7,894,899   | 5,875,612    | 25,602,048   | 10,632,170    | 11,884,692      |
| " 23....    | 63,056,262   | 7,850,634   | 6,159,115    | 25,994,738   | 10,644,000    | 12,122,000      |
| " 30....    | 63,638,999   | 7,8014,87   | 6,131,019    | 26,237,754   | 10,678,205    | 12,265,781      |
| July 7....  | 64,590,268   | 7,934,037   | 6,943,827    | 26,868,862   | 11,686,142    | 13,869,180      |
| " 14....    | 65,635,000   | 7,978,000   | 7,091,000    | 26,685,000   | 12,675,700    | 13,624,000      |
| " 21....    | 65,939,168   | 7,980,780   | 6,840,474    | 26,808,242   | 13,436,486    | 14,060,762      |
| " 28....    | 66,168,306   | 7,963,696   | 6,618,160    | 26,698,825   | 13,683,539    | 13,197,239      |
| Aug. 4....  | 66,836,729   | 7,966,702   | 6,633,822    | 27,315,402   | 14,013,524    | 13,473,620      |
| " 11....    | 67,503,527   | 7,967,761   | 6,768,178    | 26,816,409   | 14,409,359    | 12,379,978      |
| " 18....    | 68,234,988   | 7,975,427   | 6,778,260    | 26,572,627   | 14,854,778    | 12,566,167      |
| " 25....    | 68,843,323   | 8,055,402   | 6,772,215    | 26,791,827   | 15,690,425    | 13,231,313      |
| Sept. 1,... | 69,130,636   | 8,043,888   | 6,815,923    | 26,646,647   | 15,951,097    | 13,105,871      |
| " 8....     | 69,788,676   | 8,006,695   | 7,065,156    | 26,942,687   | 15,982,000    | 13,106,000      |
| " 15....    | 69,958,000   | 7,968,000   | 7,153,000    | 26,140,600   | 17,683,000    | 13,902,000      |
| " 22....    | 70,332,397   | 7,968,545   | 7,239,383    | 25,970,904   | 17,594,158    | 13,685,410      |
| " 29....    | 70,081,686   | 7,970,332   | 7,243,967    | 26,397,325   | 17,333,395    | 13,921,286      |
| Oct. 6....  | 71,043,500   | 7,991,680   | 7,616,044    | 28,166,155   | 17,805,000    | 14,961,700      |
| " 13....    | 71,226,581   | 7,977,116   | 7,949,524    | 28,678,721   | 17,036,000    | 14,960,700      |
| " 20....    | 72,553,000   | 7,842,700   | 7,832,000    | 29,316,000   | 17,868,700    | 14,555,000      |
| " 27....    | 73,649,936   | 7,850,392   | 7,793,469    | 30,725,604   | 17,498,251    | 14,380,200      |
| Nov. 3,...  | 72,218,500   | 7,860,800   | 7,816,700    | 31,497,000   | 16,711,500    | 14,340,700      |
| " 10....    | 74,280,000   | 7,979,000   | 7,124,000    | 31,992,800   | 17,332,500    | 14,979,000      |
| " 17....    | 74,880,700   | 7,970,000   | 8,055,000    | 32,504,600   | 17,141,000    | 14,801,600      |

## PENNSYLVANIA BANK RETURNS.

We have not been able to obtain full returns of all the Pennsylvania banks; but from the returns received we have estimated the entire circulation of the banks of the State to be, at the present time, \$22,550,000. Their circulation in June, 1861, was \$15,830,033.

The principal changes the past month in the Philadelphia banks will be found to be in the discounts and deposits—the discounts having increased about \$1,000,000, and the deposits about \$1,500,000. We bring our table down to the returns of the 17th of November.

PHILADELPHIA BANKS. (*Capital, Jan., 1862, \$11,970,180.*)

| Date.       | Loans.       | Specie.     | Circulation. | Deposits.    | Due to banks. | Due from banks. |
|-------------|--------------|-------------|--------------|--------------|---------------|-----------------|
| Jan. 6,...  | \$31,040,537 | \$5,688,728 | \$2,145,219  | \$21,396,014 | \$3,645,956   | \$1,796,805     |
| " 18,...    | 31,145,938   | 5,692,123   | 2,162,152    | 21,324,510   | 3,992,952     | 1,702,716       |
| " 20,...    | 30,601,160   | 5,733,450   | 2,120,756    | 20,698,496   | 4,120,261     | 1,575,116       |
| " 27,...    | 30,885,606   | 5,821,823   | 2,121,146    | 20,058,098   | 4,209,006     | 1,858,688       |
| Feb. 3,...  | 30,835,819   | 5,854,011   | 2,144,398    | 20,068,890   | 4,572,872     | 1,707,186       |
| " 10,...    | 29,974,700   | 5,928,874   | 2,191,547    | 19,032,535   | 4,890,288     | 1,587,481       |
| " 17,...    | 29,388,544   | 5,849,854   | 2,191,512    | 18,692,182   | 4,661,442     | 2,052,031       |
| " 24,...    | 29,280,049   | 5,867,686   | 2,230,605    | 18,777,300   | 5,205,203     | 1,935,414       |
| Mar. 3,...  | 29,893,356   | 5,881,108   | 2,348,493    | 18,541,190   | 5,218,383     | 1,828,383       |
| " 10,...    | 28,083,499   | 5,869,780   | 2,575,503    | 17,375,771   | 5,131,834     | 1,733,169       |
| " 17,...    | 28,723,835   | 5,897,391   | 2,632,627    | 17,253,461   | 5,342,876     | 1,649,137       |
| " 24,...    | 28,860,615   | 5,915,535   | 2,707,804    | 17,066,267   | 5,210,365     | 1,774,162       |
| " 31,...    | 27,831,323   | 5,884,314   | 2,904,542    | 17,024,198   | 5,100,186     | 2,184,392       |
| April 7,... | 28,037,691   | 5,886,424   | 3,378,970    | 18,636,588   | 5,607,488     | 2,231,889       |
| " 14,...    | 28,076,717   | 5,912,870   | 3,496,420    | 18,112,446   | 4,868,842     | 2,684,171       |
| " 21,...    | 28,246,733   | 6,046,260   | 3,525,400    | 19,011,833   | 4,548,327     | 2,504,147       |
| " 28,...    | 28,793,116   | 6,052,827   | 3,618,994    | 20,223,556   | 4,470,674     | 3,128,069       |
| May 5,...   | 29,524,432   | 6,049,685   | 3,759,692    | 21,316,614   | 4,581,837     | 3,823,659       |
| " 12,...    | 29,966,347   | 5,728,028   | 3,867,200    | 22,002,263   | 5,118,541     | 4,981,291       |
| " 19,...    | 31,121,563   | 5,529,221   | 4,045,696    | 23,385,009   | 5,697,984     | 4,804,956       |
| " 26,...    | 31,533,603   | 5,587,012   | 4,186,055    | 23,978,478   | 5,472,615     | 5,120,902       |
| June 2,...  | 31,747,070   | 5,533,482   | 4,335,013    | 24,884,644   | 5,373,322     | 5,372,748       |
| " 9,...     | 31,951,715   | 5,632,307   | 4,354,599    | 24,973,011   | 5,161,280     | 5,355,034       |
| " 16,...    | 32,132,654   | 5,630,503   | 4,298,023    | 24,807,057   | 5,086,823     | 5,396,323       |
| " 23,...    | 32,554,655   | 5,609,926   | 4,324,735    | 24,143,314   | 5,144,628     | 4,800,094       |
| " 30,...    | 32,911,578   | 5,573,999   | 4,430,057    | 24,410,423   | 5,533,644     | 5,233,273       |
| July 7,...  | 33,206,661   | 5,545,007   | 4,749,220    | 24,307,782   | 5,733,574     | 5,422,124       |
| " 14,...    | 33,118,502   | 5,579,945   | 4,859,921    | 24,133,604   | 5,936,594     | 5,415,203       |
| " 21,...    | 33,086,308   | 5,613,724   | 5,005,533    | 24,455,817   | 5,794,325     | 5,219,445       |
| " 28,...    | 33,383,373   | 5,579,788   | 5,055,276    | 24,764,281   | 5,918,294     | 5,308,984       |
| Aug. 4,...  | 33,517,900   | 5,660,187   | 5,026,070    | 24,658,289   | 5,984,242     | 5,406,075       |
| " 11,...    | 33,543,378   | 5,632,780   | 4,999,985    | 24,217,355   | 6,339,018     | 5,304,511       |
| " 18,...    | 33,506,039   | 5,552,605   | 5,006,351    | 24,147,314   | 6,400,330     | 5,316,223       |
| " 25,...    | 33,731,575   | 5,483,051   | 5,002,418    | 24,237,662   | 6,333,786     | 5,446,155       |
| Sept. 1,... | 33,899,351   | 5,548,160   | 5,071,855    | 24,597,596   | 6,518,107     | 5,322,039       |
| " 8,...     | 34,631,350   | 5,546,157   | 5,192,935    | 25,062,171   | 6,632,905     | 5,139,978       |
| " 15,...    | 35,016,676   | 5,515,044   | 5,177,537    | 24,780,163   | 7,420,242     | 5,104,687       |
| " 22,...    | 34,871,535   | 5,449,027   | 5,174,560    | 24,194,214   | 7,702,439     | 5,212,073       |
| " 29,...    | 34,589,337   | 5,440,140   | 5,111,474    | 24,997,926   | 7,265,049     | 6,085,429       |
| Oct. 6,...  | 34,826,063   | 5,453,743   | 5,095,704    | 25,419,340   | 7,119,340     | 5,714,730       |
| " 13,...    | 35,298,494   | 5,503,970   | 5,091,061    | 25,735,561   | 7,171,391     | 2,396,801       |
| " 20,...    | 35,526,351   | 5,467,907   | 5,050,614    | 25,892,970   | 7,244,194     | 2,250,332       |
| " 27,...    | 35,748,566   | 5,434,225   | 5,064,250    | 26,269,805   | 7,235,123     | 2,209,643       |
| Nov. 3,...  | 35,514,335   | 5,458,029   | 4,889,890    | 26,938,714   | 7,126,338     | 2,179,074       |
| " 10,...    | 35,978,123   | 5,324,621   | 4,768,437    | 27,396,678   | 6,217,072     | 1,989,908       |
| " 17,...    | 36,737,071   | 5,311,954   | 4,665,755    | 27,368,122   | 7,260,093     | 2,255,410       |

## RHODE ISLAND BANK RETURNS.

The banks in Rhode Island out of Providence make their returns monthly. We give returns for May, August, September, and November. Taking all the Rhode Island banks together, the following will be seen to be the principal changes:

|                                                                         | Banks out of Providence. |              |             | Providence Banks. |              |             |
|-------------------------------------------------------------------------|--------------------------|--------------|-------------|-------------------|--------------|-------------|
|                                                                         | Loans.                   | Circulation. | Deposits.   | Loans.            | Circulation. | Deposits.   |
| Nov. 3,....                                                             | \$7,006,849              | \$2,080,425  | \$1,194,416 | \$23,091,100      | \$4,264,400  | \$4,381,800 |
| May 5,....                                                              | 6,713,567                | 1,332,577    | 855,203     | 19,538,310        | 1,979,828    | 3,134,601   |
| Increase.                                                               | \$293,282                | \$697,848    | \$239,213   | \$3,552,790       | \$2,984,572  | \$1,196,699 |
| Making the total increase of all the Rhode Island banks as follows..... |                          |              |             | \$3,846,072       | \$2,982,420  | \$1,435,913 |

The following are the returns of the banks out of Providence:

| RHODE ISLAND BANKS OUT OF PROVIDENCE. (Capital, \$5,187,979.) |                |                |              |              |
|---------------------------------------------------------------|----------------|----------------|--------------|--------------|
|                                                               | Loans.         | Circulation.   | Specie.      | Deposits.    |
| May 5 .....                                                   | \$6,713,567 28 | \$1,332,577 00 | \$154,031 24 | \$855,203 03 |
| Aug. 4 .....                                                  | 6,774,060 60   | 1,780,886 00   | 138,058 46   | 1,052,985 15 |
| Sept. 1 .....                                                 | 6,829,077 15   | 1,942,870 00   | 137,422 16   | 1,129,830 05 |
| Nov. 3 .....                                                  | 7,006,849 95   | 2,030,425 00   | 132,707 25   | 1,194,416 44 |

We are able to continue our tables this month of the Providence banks to November 15th:

| PROVIDENCE BANKS. (Capital, Jan., 1862, \$15,454,600.) |              |           |              |             |               |                 |
|--------------------------------------------------------|--------------|-----------|--------------|-------------|---------------|-----------------|
| Date.                                                  | Loans        | Specie.   | Circulation. | Deposits.   | Due to banks. | Due from banks. |
| Jan. 11, ....                                          | \$19,356,800 | \$409,700 | \$1,889,600  | \$3,054,600 | \$1,099,800   | \$915,400       |
| " 18, ....                                             | 19,238,700   | 402,900   | 1,890,300    | 2,899,200   | 1,071,500     | 898,500         |
| " 25, ....                                             | 19,160,600   | 394,700   | 1,756,500    | 2,899,600   | 959,400       | 1,057,400       |
| Feb. 1, ....                                           | 19,160,600   | 394,700   | 1,811,100    | 2,950,500   | 871,800       | 925,500         |
| " 8, ....                                              | 19,087,700   | 395,900   | 1,814,300    | 2,915,200   | 900,400       | 934,700         |
| " 15, ....                                             | 19,109,400   | 394,800   | 1,784,000    | 2,762,200   | 911,100       | 1,081,000       |
| " 22, ....                                             | 18,869,800   | 396,800   | 1,879,100    | 2,792,700   | 892,900       | 1,180,000       |
| Mar. 1, ....                                           | 18,920,500   | 407,500   | 1,791,200    | 2,924,400   | 953,900       | 1,283,000       |
| " 8, ....                                              | 18,953,900   | 405,100   | 1,973,500    | 3,030,600   | 1,131,500     | 1,598,800       |
| " 15, ....                                             | 18,998,600   | 408,600   | 1,848,100    | 2,946,800   | 1,103,200     | 1,484,300       |
| " 22, ....                                             | 19,148,400   | 408,800   | 1,879,200    | 3,060,900   | 1,085,000     | 1,407,700       |
| " 29, ....                                             | 19,860,500   | 411,800   | 1,857,100    | 3,078,800   | 1,021,000     | 1,165,400       |
| Apr. 5, ....                                           | 19,641,000   | 417,500   | 2,102,000    | 3,124,000   | 1,115,500     | 1,063,200       |
| " 12, ....                                             | 19,719,200   | 416,600   | 2,036,300    | 3,017,700   | 1,081,000     | 894,800         |
| " 19, ....                                             | 19,644,500   | 408,600   | 1,953,400    | 3,015,900   | 1,020,400     | 845,400         |
| " 26, ....                                             | 19,620,300   | 413,700   | 1,877,200    | 3,123,500   | 948,400       | 961,200         |
| May 3, ....                                            | 19,538,410   | 417,378   | 1,979,828    | 3,134,601   | 950,430       | 1,156,072       |
| " 10, ....                                             | 19,070,200   | 410,300   | 1,969,400    | 3,164,700   | 1,132,500     | 1,714,400       |
| June 7, ....                                           | 19,236,100   | 395,600   | 2,016,600    | 3,342,400   | 1,653,000     | 2,101,900       |
| " 14, ....                                             | 19,641,600   | 388,500   | 2,182,700    | 3,274,600   | 1,666,500     | 1,813,200       |
| " 21, ....                                             | 19,327,500   | 385,500   | 2,324,900    | 3,153,600   | 1,627,500     | 1,744,400       |
| " 28, ....                                             | 20,235,500   | 383,400   | 2,510,500    | 3,283,200   | 1,873,500     | 1,753,700       |
| July 5, ....                                           | 20,588,800   | 392,100   | 2,838,300    | 3,531,500   | 1,763,900     | 1,858,800       |
| " 12, ....                                             | 20,416,400   | 388,000   | 2,953,800    | 3,188,100   | 1,744,600     | 1,796,600       |
| " 19, ....                                             | 20,494,600   | 384,800   | 2,980,200    | 3,347,300   | 1,918,500     | 2,023,400       |
| " 26, ....                                             | 21,078,400   | 376,400   | 3,143,100    | 4,232,200   | 2,061,800     | 2,150,200       |
| Aug. 16, ....                                          | 21,051,000   | 367,600   | 3,066,700    | 3,780,500   | 1,646,200     | 1,927,500       |
| " 23, ....                                             | 21,119,500   | 363,300   | 3,102,000    | 3,569,900   | 1,804,600     | 2,090,700       |
| Sept 6, ....                                           | 21,279,200   | 355,700   | 3,394,200    | 3,704,200   | 1,844,800     | 1,683,306       |
| " 20, ....                                             | 21,804,200   | 356,900   | 3,484,300    | 3,731,600   | 1,710,800     | 1,642,800       |
| Oct. 11, ....                                          | 22,197,400   | 379,000   | 4,006,600    | 4,066,000   | 1,751,100     | 1,859,900       |
| " 25, ....                                             | 22,618,200   | 357,700   | 4,128,200    | 4,083,200   | 2,121,300     | 1,913,500       |
| Nov. 8, ....                                           | 23,091,100   | 359,400   | 4,264,400    | 4,331,300   | 1,999,700     | 1,563,300       |
| " 15, ....                                             | 23,365,700   | 369,100   | 4,361,200    | 4,402,900   | 1,948,800     | 1,315,700       |



**NEW JERSEY BANKS.**

Below we give the principal items of the last returns of the New Jersey banks, and also the returns for January, 1861. By comparing the two it will be seen that there is an increase of \$4,000,000 in circulation, and over \$2,500,000 in deposits:

|                    | <b>LIABILITIES.</b> |                |
|--------------------|---------------------|----------------|
|                    | October, 1862.      | January, 1861. |
| Capital stock..... | \$8,020,262 50      | \$8,246,944    |
| Circulation.....   | 8,124,528 00        | 4,164,799      |
| Deposits.....      | 7,830,384 67        | 5,117,817      |
| Discounts.....     | 14,989,630 76       | 13,864,045     |
| Specie.....        | 1,085,851 97        | 1,049,090      |
| Stocks.....        | 4,128,711 69        | 899,831        |

**NEW HAMPSHIRE BANKS.**

There are in New Hampshire fifty-two banks. We give the returns of these banks for June and December, 1861, and June 1862. Up to the date of the last returns there had only been an increase of about \$200,000 in the circulation:

|                               | <b>LIABILITIES.</b> |                    |                    |
|-------------------------------|---------------------|--------------------|--------------------|
|                               | June, 1861.         | December, 1861.    | June, 1862.        |
| Capital.....                  | \$5,081,000         | \$5,081,000        | \$4,891,200        |
| Circulation.....              | 2,985,894           | 2,994,408          | 3,183,255          |
| Deposits.....                 | 1,268,726           | 1,876,853          | 1,806,518          |
| Miscellaneous.....            | 491,470             | 474,301            | 477,857            |
| <b>Total Liabilities.....</b> | <b>\$9,777,090</b>  | <b>\$9,876,562</b> | <b>\$9,858,830</b> |

|                           | <b>ASSETS.</b>     |                    |                    |
|---------------------------|--------------------|--------------------|--------------------|
| Loans.....                | \$8,847,238        | \$8,868,941        | \$7,835,776        |
| Specie.....               | 301,841            | 318,106            | 42,736             |
| Real estate.....          | 78,321             | 78,253             | 54,381             |
| Bank balances.....        | 883,152            | 907,440            | 1,328,897          |
| Bills of other banks..... | 166,538            | 203,822            | 197,040            |
| <b>Total assets.....</b>  | <b>\$9,777,090</b> | <b>\$9,876,562</b> | <b>\$9,858,830</b> |

**BANK OF ENGLAND.****WEEKLY STATEMENT.**

The returns of the Bank of England the past month, show a continued decrease in bullion each week:

|                                                         |          |                   |
|---------------------------------------------------------|----------|-------------------|
| For the week ending October 15.....                     | decrease | £317,896          |
| " " " 22.....                                           |          | 317,561           |
| " " " 29.....                                           |          | 895,845           |
| " " November 5.....                                     |          | 91,044            |
| <b>Total decrease from October 8 to November 5.....</b> |          | <b>£1,122,346</b> |
| <b>Decrease preceding four weeks.....</b>               |          | <b>1,059,559</b>  |
| <b>Total decrease since September 10.....</b>           |          | <b>£2,181,905</b> |

On the 29th of October the bank rate of discount was raised to 3 per cent. This change was made on account of the higher value of money over the continent, and the consequent exportation of bullion from England, and also because of the unusually large shipments of silver to India, promoted, as they have been, by the increased cotton purchases of late.

The other changes are immaterial.

| Date.       | Circulation. | Public Deposits. | Private Deposits. | Securities. | Coin and Bullion. | Rate of Discount. |
|-------------|--------------|------------------|-------------------|-------------|-------------------|-------------------|
| Jan. 1...   | £20,818,190  | £7,345,833       | £15,036,062       | £30,419,780 | £15,961,439       | 8 pr. ct.         |
| " 8....     | 21,086,675   | 4,542,974        | 18,206,488        | 31,022,505  | 16,046,017        | 2½ "              |
| " 15....    | 21,460,925   | 4,583,833        | 16,450,452        | 29,509,864  | 16,291,624        | 2½ "              |
| " 22....    | 21,697,923   | 5,467,340        | 15,366,081        | 29,464,720  | 16,350,939        | 2½ "              |
| " 29....    | 21,183,376   | 5,753,063        | 14,751,486        | 28,696,456  | 16,280,369        | 2½ "              |
| Feb. 5....  | 21,427,554   | 5,788,441        | 14,179,917        | 28,834,352  | 16,956,903        | 2½ "              |
| " 12....    | 21,236,312   | 4,884,989        | 15,526,334        | 29,010,241  | 16,042,949        | 2½ "              |
| " 19....    | 20,772,728   | 5,397,144        | 15,085,843        | 28,771,812  | 15,894,405        | 2½ "              |
| " 26....    | 20,786,715   | 5,762,849        | 14,989,742        | 29,024,962  | 15,749,065        | 2½ "              |
| Mar. 5....  | 21,217,246   | 6,755,287        | 13,787,507        | 29,692,441  | 15,673,898        | 2½ "              |
| " 12....    | 20,013,685   | 7,527,911        | 13,763,718        | 29,489,795  | 16,027,111        | 2½ "              |
| " 19....    | 20,483,509   | 8,011,694        | 13,840,928        | 28,953,089  | 16,543,586        | 2½ "              |
| " 26....    | 20,814,655   | 8,413,275        | 13,154,258        | 29,140,207  | 16,812,798        | 2½ "              |
| April 2.... | 21,501,595   | 8,456,468        | 13,622,532        | 30,393,790  | 16,849,198        | 2½ "              |
| " 9....     | 21,822,105   | 5,625,314        | 16,336,169        | 29,981,793  | 16,881,940        | 2½ "              |
| " 16....    | 22,048,463   | 5,225,132        | 15,710,260        | 29,325,888  | 16,743,434        | 2½ "              |
| " 23....    | 21,655,553   | 5,584,973        | 15,915,247        | 29,022,128  | 17,172,204        | 2½ "              |
| " 30....    | 21,946,997   | 6,867,875        | 14,387,007        | 29,164,075  | 17,089,446        | 2½ "              |
| May 7....   | 21,752,884   | 7,503,991        | 13,866,643        | 28,961,214  | 17,265,745        | 2½ "              |
| " 14....    | 21,618,780   | 6,304,633        | 14,948,308        | 29,076,079  | 16,919,147        | 2½ "              |
| " 21....    | 21,539,430   | 6,557,811        | 14,567,671        | 29,433,044  | 16,344,940        | 3 "               |
| " 28....    | 21,265,561   | 6,937,808        | 14,685,087        | 29,824,704  | 16,178,815        | 3 "               |
| June 4....  | 21,515,263   | 7,518,007        | 13,188,136        | 29,841,864  | 15,489,723        | 3 "               |
| " 11....    | 21,329,641   | 8,325,516        | 13,156,662        | 31,396,492  | 15,086,100        | 3 "               |
| " 18....    | 21,076,059   | 9,322,949        | 13,085,271        | 31,342,547  | 15,268,453        | 3 "               |
| " 25....    | 21,172,057   | 9,629,594        | 13,399,245        | 31,424,661  | 15,909,638        | 3 "               |
| July 2....  | 22,242,361   | 9,672,345        | 13,851,869        | 32,709,039  | 16,220,771        | 3 "               |
| " 9....     | 22,504,490   | 5,429,939        | 17,199,715        | 31,287,912  | 17,055,537        | 2½ "              |
| " 16....    | 23,085,409   | 5,223,380        | 17,063,630        | 30,942,358  | 17,671,890        | 2½ "              |
| " 23....    | 22,942,503   | 5,291,213        | 17,202,923        | 30,631,501  | 18,060,617        | 2 "               |
| " 30....    | 22,933,036   | 5,895,840        | 16,903,068        | 30,542,050  | 18,448,443        | 2 "               |
| Aug. 6....  | 23,378,393   | 6,157,358        | 15,232,959        | 30,162,297  | 17,956,938        | 2 "               |
| " 13....    | 22,920,727   | 6,338,546        | 14,594,854        | 29,929,352  | 17,778,846        | 2 "               |
| " 20....    | 22,900,555   | 7,150,252        | 14,568,007        | 30,309,703  | 17,674,604        | 2 "               |
| " 27....    | 22,079,890   | 7,508,882        | 14,865,006        | 30,106,295  | 17,678,698        | 2 "               |
| Sept. 3.... | 22,348,918   | 7,671,934        | 14,973,470        | 30,808,748  | 17,325,220        | 2 "               |
| " 10....    | 21,895,385   | 8,768,329        | 13,809,643        | 30,504,527  | 17,611,538        | 2 "               |
| " 17....    | 21,610,987   | 9,074,279        | 13,733,905        | 30,700,116  | 17,365,753        | 2 "               |
| " 24....    | 21,300,731   | 9,268,106        | 13,825,230        | 30,874,552  | 17,166,742        | 2 "               |
| Oct. 1....  | 22,365,351   | 8,486,834        | 13,595,337        | 31,140,897  | 16,949,187        | 3 "               |
| " 8....     | 22,187,670   | 8,333,779        | 13,530,122        | 31,101,260  | 16,548,156        | 2 "               |
| " 15....    | 22,395,352   | 6,253,982        | 15,712,485        | 31,192,688  | 16,230,260        | 2 "               |
| " 22....    | 22,271,497   | 5,944,238        | 15,197,661        | 30,566,930  | 15,912,699        | 2 "               |
| " 29....    | 21,732,522   | 6,091,697        | 16,455,543        | 31,339,976  | 15,516,854        | 3 "               |
| Nov. 5....  | 21,878,952   | 6,271,105        | 14,797,889        | 30,788,184  | 16,425,310        | 3 "               |

#### AMERICAN CURRENCY IN CANADA.

The following order has been issued under date of October 31, 1862:

ORDER AUTHORIZING COLLECTORS OF CUSTOMS TO MAKE CERTAIN DEDUCTIONS FROM AMERICAN INVOICES.

His Excellency the Governor-General, in council, was pleased to lay be-

fore the council a memorandum of this day's date from the Hon. the Minister of Finance, stating that it has been represented to his department that the paper currency authorized and made a legal tender by the United States Government has become greatly depreciated in value, and that the market value of goods in the several markets of the United States is based upon the nominal value of the said paper currency, and that the levying of duty upon this value so based is injurious to trade, and has the effect of making the duty so imposed greater than it would be if imposed upon the fair market value thereof, if such value was expressed in the standard currency of the United States, which was the only legal currency in that country where the customs laws of this Province were enacted.

His Excellency was pleased to order, and it is hereby ordered, that, with a view to remedy as far as possible the evils complained of, all invoices of goods purchased on and after the 1st day of November prox., in the United States, the prices of which are based upon such depreciated paper currency, shall, upon the entry thereof, be accompanied by a certificate, under the hand and seal of a British Consul, showing the percentage of depreciation of American paper currency as compared with gold, on the day of the date of such invoice; and that collectors of customs in this province be authorized to deduct the amount of such percentage from the invoice, and compute the duties upon the amount remaining after such deductions.

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CIRCULAR TO COLLECTORS OF CUSTOMS.

*Quebec, November 11, 1862.*

SIR: With reference to the order of the Governor-General in Council, of the 31st October last, published in the *Canada Gazette* extra of November 3d, of which a copy was inclosed to you for your guidance, I have further by desire of the Finance Minister to inform you that all invoices of goods purchased in the United States must be made out and presented at the Custom-house, in the prevalent current prices of the United States markets, and as they would be paid for in the depreciated paper currency of that country at the time of the transaction; and should invoices of goods purchased in American markets be presented showing the value of such goods in gold instead of such depreciated currency, it will be your duty in such cases to consult the prices current in New York, and otherwise ascertain by any means in your power, the current value, in such depreciated currency, of the goods mentioned in such last mentioned invoices, and thereupon to make such additions to the gold invoices as will be justified by the prices current as quoted in the *New York Spectator* or *Journal of Commerce*. The deduction is then to be made from the amount of the invoice in accordance with the percentage of depreciation shown by the consular certificate.

I am, sir, your obedient servant,

R. S. M. BOUCHETTE.

## STATISTICS OF AGRICULTURE.

1. POPULATION AND AGRICULTURAL AND MINERAL PRODUCTS OF THE UNITED STATES. 2. THE  
BRITISH CONSUL AT CHARLESTON AND THE COTTON CROP. 3. HUNGARIAN WINES.

### POPULATION AND AGRICULTURAL AND MINERAL PRODUCTS OF THE UNITED STATES.

THE following is a tabular statement which was appended to a recent circular from the Commissioner of Agriculture, on the present agricultural, mineral, and manufacturing condition and resources of the United States :

#### POPULATION, AREA, AGRICULTURAL PRODUCTIONS, &C.

|                                                      |                |
|------------------------------------------------------|----------------|
| Population, white.....                               | 26,975,575     |
| “ free colored.....                                  | 487,996        |
| “ slaves.....                                        | 3,953,760      |
| Total, including Indians.....                        | 31,749,281     |
| Area of the United States.....square miles           | 3,250,000      |
| Aggregate of real and personal property. ....dollars | 16,159,616,068 |
| Value of productions of industry .....               | 1,900,000,000  |
| Cash value of farms .....                            | 6,650,872,507  |
| Cash value of farming implements and machinery....   | 247,027,496    |
| Value of live stock.....                             | 1,107,490,216  |
| Value of lands improved.....                         | 163,261,383    |
| Value of lands unimproved.....                       | 246,508,244    |
| Wheat crop.....bushels                               | 171,183,381    |
| Rye crop.....                                        | 20,976,286     |
| Indian corn .....                                    | 830,451,707    |
| Oat crop.....                                        | 172,554,688    |
| Rice.....pounds                                      | 187,140,173    |
| Tobacco .....                                        | 429,390,771    |
| Ginned cotton.....bales, 400 pounds                  | 5,198,077      |
| Wool .....pounds                                     | 60,511,343     |
| Peas and beans.....bushels                           | 15,188,013     |
| Irish potatoes.....                                  | 110,571,201    |
| Sweet potatoes.....                                  | 41,606,302     |
| Barley.....                                          | 15,635,119     |
| Buckwheat.....                                       | 17,664,914     |
| Value of orchard products.....dollars                | 19,759,361     |
| Wine.....gallons                                     | 1,860,003      |
| Productions of market gardens.....dollars            | 15,541,027     |
| Butter.....pounds                                    | 460,509,854    |
| Cheese.....                                          | 105,875,135    |
| Hay.....tons                                         | 19,129,128     |
| Clover seed.....bushels                              | 989,010        |
| Grass seed.....                                      | 900,386        |
| Hemp, dew rotted.....tons                            | 83,247         |
| Hemp, water rotted.....                              | 3,943          |

|                                                                                           |                         |             |
|-------------------------------------------------------------------------------------------|-------------------------|-------------|
| Hemp, other prepared.....                                                                 | tons                    | 17,800      |
| Hops.....                                                                                 | pounds                  | 11,040,012  |
| Flax.....                                                                                 |                         | 3,783,079   |
| Silk cocoons.....                                                                         |                         | 6,562       |
| Maple sugar.....                                                                          |                         | 38,863,884  |
| Cane sugar.....                                                                           | hogsheads, 1,000 pounds | 302,205     |
| Cane molasses.....                                                                        | gallons                 | 16,337,080  |
| Sorghum molasses.....                                                                     |                         | 7,235,025   |
| Maple molasses.....                                                                       |                         | 1,944,594   |
| Beeswax and honey.....                                                                    | pounds                  | 26,386,855  |
| Value home-made manufactures.....                                                         | dollars                 | 24,358,222  |
| Value of cotton goods produced in the year ending<br>June 1st, 1860.....                  |                         | 115,137,926 |
| Value of woolen goods produced.....                                                       |                         | 68,865,963  |
| Leather produced.....                                                                     |                         | 63,090,751  |
| Boots and shoes manufactured in the year ending June<br>1st, 1860.....                    |                         | 89,549,900  |
| Value of animals slaughtered.....                                                         |                         | 212,871,653 |
| Number of horses.....                                                                     |                         | 7,300,972   |
| Number of asses and mules.....                                                            |                         | 1,296,339   |
| Number of sheep.....                                                                      |                         | 24,823,566  |
| Number of neat cattle.....                                                                |                         | 28,987,346  |
| Number of swine.....                                                                      |                         | 36,022,276  |
| Agricultural implements produced in the United States                                     |                         | 17,802,514  |
| Value of sewing machines.....                                                             | dollars                 | 5,605,345   |
| Number of patents issued for improvements and inven-<br>tions in agriculture in 1861..... |                         | 521         |
| Newspapers and periodicals, 1860.....                                                     |                         | 4,051       |
| Value of steam engines and machinery.....                                                 | dollars                 | 47,118,550  |

## MINERAL PRODUCTS, ETC.

|                                                      |              |            |
|------------------------------------------------------|--------------|------------|
| Gold from California in the year 1859.....           | dollars      | 47,744,462 |
| Silver coined at mint.....                           |              | 610,011    |
| Quicksilver.....                                     | flasks       | 45,023     |
| Quicksilver, value of.....                           | dollars      | 2,000,000  |
| Copper.....                                          | tons         | 14,432     |
| Copper, value of.....                                | dollars      | 3,316,516  |
| Pig iron.....                                        | tons         | 884,474    |
| Pig iron, value of.....                              | dollars      | 19,487,790 |
| Zinc.....                                            | tons         | 11,800     |
| Zinc, value of.....                                  | dollars      | 72,600     |
| Lead, value of.....                                  |              | 977,281    |
| Nickel.....                                          | tons         | 2,348      |
| Nickel, value of.....                                | dollars      | 28,176     |
| Coal, anthracite.....                                | tons         | 9,389,330  |
| Coal, bituminous.....                                |              | 5,775,077  |
| Coal, value of.....                                  | dollars      | 19,365,765 |
| Area of coal in United States.....                   | square miles | 200,000    |
| Coal oil.....                                        | barrels      | 1,092,450  |
| Coal oil, value of.....                              | dollars      | 1,092,450  |
| Coal oil, daily flow from wells in Pennsylvania..... | barrels      | 5,717      |
| Salt, value of, manufactured in the U. S., 1860..... | dollars      | 2,265,302  |

## FISCAL RESOURCES, NATIONAL DEBT, ETC.

|                                                         |             |
|---------------------------------------------------------|-------------|
| Aggregate value of imports in the year 1860...dollars   | 334,350,453 |
| Aggregate value of exports.....                         | 248,505,454 |
| Value of imports under the reciprocity treaty.....      | 20,019,427  |
| Tonnage of the United States.....tons                   | 5,539,813   |
| Tonnage, value of.....dollars                           | 221,592,092 |
| Indirect trade.....                                     | 34,224,444  |
| Fisheries, the products of 1860 .....                   | 12,924,092  |
| Excess of specie and bullion imports over exports....   | 16,548,531  |
| Revenue from customs and public lands .....             | 40,452,784  |
| Total of the national debt December 1, 1861.....        | 267,540,035 |
| Estimated quantity of coin in the U. S.\$275,000,000 to | 300,000,000 |
| Number of banks .....                                   | 1,642       |
| Bank capital.....dollars                                | 421,890,095 |
| Circulation of banks.....                               | 207,102,477 |
| Spirituos liquors distilled.....gallons                 | 88,002,983  |
| Spirituos liquors, value of.....dollars                 | 24,253,176  |
| Malt liquors brewed.....barrels                         | 3,239,545   |
| Malt liquors, value of.....dollars                      | 18,001,135  |

## RAILROADS, ETC.

|                                                                                                                                                                                                                         |               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| Aggregate length of railroads in 1860 .....miles                                                                                                                                                                        | 31,196½       |
| Cost of construction .....dollars                                                                                                                                                                                       | 1,166,422,729 |
| City passenger railroads.....miles                                                                                                                                                                                      | 402           |
| Cost of construction.....dollars                                                                                                                                                                                        | 14,862,840    |
| Length of internal navigation.....miles                                                                                                                                                                                 | 30,000        |
| Length of lines of telegraph.....                                                                                                                                                                                       | 40,000        |
| By act of Congress of July 1, 1862, a charter was granted to the Atlantic and Pacific Railroad Company, with a capital of.....dollars                                                                                   | 100,000,000   |
| For the construction of a railroad, with branches, from the Mississippi River to the Pacific Ocean....miles                                                                                                             | 1,800         |
| In aid of this colossal enterprise Congress has made a very liberal donation by grants of public lands lying on the route, and a loan of thirty years' six per cent United States bonds to the amount of about..dollars | 60,000,000    |

## EDUCATIONAL.

The number of principal colleges and professional schools in the United States, including theological, law, and medical, in 1860, was 233. By an act of Congress of July 2, 1862, about 10,000,000 acres of public lands were appropriated for the support of colleges and schools for the benefit of agriculture and the mechanic arts in the several States and Territories of the Union. Five millions of persons received instruction in the educational institutions of the United States in the year ending June, 1860. The system of common school education has been adopted in nearly all the free States.

## THE BRITISH CONSUL AT CHARLESTON ON THE COTTON CROP.

The British Foreign Office had issued a letter written by Mr. Buxch, the British Consul at Charleston, touching the quantity of cotton now in the Southern States. This letter is dated 13th of August last, and Mr. Buxch professes to have been at some pains to collect his information, and thinks it may be depended upon. He says:—"There can be but little doubt that the crop of 1862 would, under ordinary circumstances, have reached 4,500,000 bales, but in consequence of the civil war not more than 1,500,000 have been planted. It is thought by some that the present crop will not exceed 1,000,000 bales, but I have reason to believe that the supply from Texas has been under estimated. That State has been, as yet, very little disturbed by military operations, so that agriculture has been less interfered with than elsewhere. On the banks of the Mississippi very little cotton has been planted, as the danger is too great. It is only in the interior of the various States, at a distance from the great rivers, that the crop of this year is to be found.

"The crop of 1860 was disposed of, and, in a considerable measure exported, before the blockade of the Southern ports was established, but it is calculated that 750,000 bales still remain on hand.

"The crop of 1861 amounted to about 2,750,000 bales. Of these about 1,000,000 have been destroyed at various places, to prevent their falling into the hands of the federals; the rest is stored in the interior of the different States. Much of it has been bought by foreigners, who hope to preserve it as neutral property through all the dangers of the war.

"About 50,000 bales have run the blockade successfully, chiefly to Nassau. One cargo has gone to Barcelona and one to France. I do not take into account the product of the Sea Islands of South Carolina and Georgia. They are in the possession of the federals, and I have no means of ascertaining whether any cotton at all has been grown there during the present season.

"The amount, therefore, of cotton remaining in the Southern States at this date, which might be available to foreign commerce as soon as the blockade is removed, may be said to stand thus:

|                                    |       |           |
|------------------------------------|-------|-----------|
| Remainder of crop of 1860.....     | bales | 750,000   |
| Undestroyed crop of 1861.....      |       | 1,750,000 |
| Crop of 1862 (not yet picked)..... |       | 1,500,000 |
| Total.....                         |       | 4,000,000 |
| Shipped through the blockade.....  |       | 50,000    |
| Remaining in the South.....        |       | 3,950,000 |

"It must, of course, be remembered, that a portion or the whole of this accumulation may be destroyed at any moment by the Southern people."

## HUNGARIAN WINES.

Hungary produces a great variety of wines, both white and red, and in immense quantity, being in fact, next to France, the greatest wine producing country in the world—the annual production of France and Hungary respectively being as seven to four. The peculiar geographical position of the latter country, however, and the jealousy with Austria has hitherto

guarded her from all communication with the outer world, kept her wines, with a few exceptions, until within the last ten years, entirely out of the world's markets. The exception were Tokay, "Imperial Tokay," and Menes and Ruszt, the white and red liqueur wines of the country, which two centuries ago were the prime rarities at all the royal tables of Europe. Of Tokay we have had extremely little experience in this country. When Prince METTERNICH was Ambassador to the Prince Regent of England he introduced it to the banquets of Carlton-house and Pavillion, adding—which was a pure invention of his own—that it was only produced on one of his estates. The truth is, that there is a whole hill district of about five miles square in which the Tokay wine is made, and so precious is it deemed that every magnet in the whole country holds a small farm in this favoured spot. One cause of the rarity of this extraordinary wine is, that it can only, in the best sort, it is asserted, be made from grapes which have dried on the vine, and as this only happens in exceptionally hot summers, the vintage takes place at long and irregular intervals. Even then the juice of the grape is reduced to the strongest essence, and from this the wine is made. The red liqueur wines, "Menes" and "Ruszt," go through the same process, and, when genuine, are of the same rarity and value. For Tokay a virtue is claimed which will cause many to think it cheap at any price. It is said to have peculiarly strengthening and restorative properties for persons at an advanced period of life. It is asserted that the famous life-prolonging draught with which the late Princess LIEVEN was wont to oblige her particular friends, was nothing but Tokay of the finest vintage. About 2000 bottles is the whole stock of the genuine article now to be found in all Hungary, and the character claimed for it is that it is "the *beau ideal* of liqueurs, clear as oil, thick as honey, pungent as either, and a *grand restorative for the aged and debilitated*." But, descending from the almost inaccessible Tokay, and Menes, and Rustz, which are all three classed under the musical name of "Aszu," or sweet wines, and only used as liqueurs and restoratives, Hungary produces the finest red and white wines, the former rivalling claret and Burgundy, and some of them "humble port" in flavour, but far surpassing them in purity and aroma; and the latter, the finest "dry" table wines in the world. They are produced in such abundance that adulteration is never thought of; and with relaxed Austrian fiscal regulations, and improved means of transit, they could be sold in the markets of the world at the most moderate prices.



## JOURNAL OF MINING, MANUFACTURES, AND ART.

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1. WONDERFUL COPPER DISCOVERY IN THE PORTAGE LAKE DISTRICT. 2. PETROLEUM—ITS USE AS A FUEL. 3. THE DISCOVERY OF SHOT-MAKING. 4. THE ATLANTIC TELEGRAPH.

### WONDERFUL COPPER DISCOVERY IN THE PORTAGE LAKE DISTRICT.

SOME two weeks ago says the *Lake Superior News and Journal* of Oct. 31st, a huge mass of float copper, weighing at least twenty tons, was discovered on the location of the Mesnard Mine, at Portage Lake. In size it was some *sixteen* feet long, *four* wide, and *one-and-a-half* thick, which is by far the largest *float* mass ever before found upon the Lake. Such being its prodigious weight, it was patent that it came from a vein near by, as it was impossible that any human agency known to exist in the past, could have moved it a great distance. Beneath it, charcoal was found, and also stone hammers, indicating plainly that the ancient miners, whose history is unwritten, and of whom nothing is known except as traces of their workings are thus found, had either taken it from its original bed and placed it in fire, in order to burn the rock from it, or finding it upon the spot where it was now discovered, placed it in the fire for the same purpose. We find those who are of the opinion it was never put in the place where it was found by human agency, for the reason that a large amount of the float copper in small masses, weighing from a half pound to fifty, are found scattered immediately around it. Already some two tons have been gathered, and whose existence in proximity with the large mass, would indicate that water and ice may have been the agencies by which they were thus moved and scattered from their original resting place. The agency, however, by which they were thus placed over the surface, it is not so important to know, as their existence, and the more important fact to which they point, viz: *that they must have come from some vein near at hand*. With this conviction, simultaneously with the cutting up of the huge mass, and the collecting of the smaller ones, the work of a most thorough exploration was begun, in order to find the vein from which they came. What was thus reasonably manifest, seems to have been accomplished, for the work of a few days uncovered, about forty feet distant from the huge float, *a mass of still larger dimensions in the vein itself*. At last accounts, this new wonder had been stripped some five feet in breadth for a length of twelve feet, and three thick, with no indication of growing less at any point. It is opened sufficiently to indicate that it will far exceed the float mass. The vein in which it is found has been known for years. It runs through the Quincy, Pewabic, Franklin, Pontiac, Albany, and Boston, &c., and they all, in the value of their stock, must at least feel the effect of this development. The vein is of the Epidote character, but from some cause seems to spread and soften at the spot of this discovery. We have heard it described as an Amygdaloid belt of the Epidote character. The agent of this thus fortunate mine, is prosecuting the work of opening the vein with diligence, employing all the labor he can obtain. The general impression among the oldest and

ablest mining men is that a vein of extraordinary richness has been struck, which will add new interest to this heretofore wonderful district.

Portage Lake is the general name by which that section is known. The Lake itself is an inland body of water, cutting the range nearly east and west but whose general course is south-east and north-west. Its outlet is into the west side of Keweenaw Bay, and has been made navigable for first-class steamers. This, however, has been secured by dredging out the channel at its confluence with the bay, and building piers on each side to protect it from the action of the waves. A number of its shortest bends have also been abandoned, and new channels cut, while others have been greatly improved, which was easily done, the shores of the outlet being marshy. These improvements have cost about \$50,000; but the parties making them have organized themselves into a corporation, known as the "Portage River Improvement Company," and levied a toll upon all articles passing either way until they shall have been reimbursed. This toll is a small consideration to the benefits conferred, as steamers now pass in and out, by day or by night, at pleasure.

This Lake, with its outlet, extends nearly across the base of Keweenaw Point—there being a portage of only two miles between its north-western extremity and Lake Superior—one half of which distance is low marshy land, which can be easily opened, while the remaining mile, through dry land is low—simply a sand beach covered with Norway pine. There is no question but that what is now Portage Lake was, at one time, simply a vein of Lake Superior, connecting its waters on the west side of Keweenaw Point with those of Keweenaw Bay, thus leaving the point itself an island; nor have we any question but that the day is hastening when this short portage will again be opened, and made to contribute to the security and dispatch of commerce. It is estimated that \$100,000 judiciously expended, would so open it as to permit the passage of steamers and vessels. This would secure at once the double advantage of shortening the distance from Portage Lake ports, to those above nearly one hundred miles, and affording a good and secure harbor on a dangerous coast now without one; while every west wind would cause a current of pure fresh water to course through this passage, the value of which to health cannot be estimated.

This channel, from the outlet of Portage Lake, to where, if thus opened, it would again connect with Lake Superior, would be about twenty-six miles in length, with an average depth of fifty feet, and half a mile in width. It cuts the copper range nearly midway from the Bay to the Lake, it being fourteen miles from this point by Portage Lake to Keweenaw Bay, and twelve to Lake Superior. Upon each side the hills of trap rock rise at an angle of some twenty degrees to a height of five and six hundred feet. Up these angles, and on these summits, are located copper mines of remarkable richness, that are being worked with great vigor and success. At their base are located the villages of Houghton and Hancock.

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#### PETROLEUM—ITS USE AS A FUEL.

Few but those who have visited France, can form any idea of the high price of fuel in that country, or of the vast variety of methods which are employed to economize this necessary of life. Patents, without number, have been granted in France for the manufacture of "artificial fuel." In

order to explain this subject more thoroughly, we subjoin one or two of the processes which are largely employed, not only in Europe, but also among the half civilized Orientals.

In the neighborhood of the Caspian Sea, where petroleum springs are abundant, the inhabitants manufacture a fuel by impregnating clay with the combustible fluid; the clods are afterwards burned on an ordinary hearth. The Norwegians have long economized the saw-dust of their mills by incorporating it with a little clay and tar, and moulding it into the form of bricks. Of late years, in England, much attention has been given to artificial fuel in many districts, but not with much success, owing to the want of a suitable combustible, which petroleum is, above all others, best adapted to supply. In France, charcoal is prepared from the refuse of the charcoal furnaces, by mixing it with charred peat or spent tar, and then adding tar or pitch. The materials are ground together and subjected to heat in close vessels, to expel volatile gases. From seven to nine gallons of tar are mixed with two hundred weight of charcoal powder.

In rural districts, where common fuel is often very expensive, gas, manufactured in portable works, would be largely used for culinary operations, as it now is where the supply of gas is constant and cheap. But there is no necessity to convert petroleum into gas, in order to use it as fuel. Stoves have been constructed for the combustion of this substance without the use of a glass chimney, and without the production of smoke. It will necessarily, from its cheapness, supercede alcohol, which is commonly used as fuel for cooking purposes during the summer months. And we may soon look for its adoption as fuel for the generation of steam in our ocean steamers, where economy in bulk and weight is so great a desideratum.—*The Philadelphia Coal Oil Circular.*

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#### THE DISCOVERY OF SHOT-MAKING.

About seventy years ago there lived in the city of Boston, England, a Mr. WILLIAM WATTS, a plumber and glazier. To this occupation he added that of a shot-maker. At that time shot-making was but a partially developed art, and consisted in letting drops of melted lead fall into a vessel of water at a height of but two or three feet, which caused the drops to suddenly cool in a rounded form. But as the metal did not thoroughly solidify before it reached the water, the sudden contact of it with the latter caused a slight indentation on the surface of every shot exactly at the point where it first touched the liquid. In fact, it destroyed or rather prevented perfect sphericity—a slight imperfection to all appearance, but quite sufficient to prevent the little missiles from travelling in a straight line when sent from a gun.

Mr. WATTS was a bit of a sportsman himself, and seeing that with the shot as then made he could not secure a certain aim, he investigated the matter, and soon came to the conclusion that that imperfect sphericity was the cause of the shot flying wide of the mark. The fault ascertained, the question next was how to correct it. He racked his brain day and night, hoping to discover some method of making a perfectly round shot—many were the experiments he made, but all in vain, and he at last gave up the idea in despair.

But Mr. WATTS had a wife who was not so easily beaten, and she had

set her wits to work also. She was a remarkably quiet, thoughtful woman, and took it into her head that, as there was a cure for almost every ill, so there might be a remedy for bad shot. She was one of those who didn't know what impossibilities meant. This idea having entered her mind, there it remained, and we all of us know that if a woman sets her heart on accomplishing anything, accomplish it she will. Day after day she watched the process of shot-making, as she sat by the water tank knitting away for dear life, but saying never a word, though eye, brain and fingers were not unemployed for a moment. So matters went on for many months; Mr. WATTS became desponding; his business fell off, and poverty stared him in the face. Rather than make imperfect shot, he cared not to make any, and he soon must have gone to ruin had it not been for a dream.

One night Mr. WATTS was suddenly aroused from comfortable slumber by a vigorous shake of his shoulder. Rubbing his eyes, and "God blessing himself," he sat bolt upright in bed, and perceived with great surprise (for the moon was shining into the chamber,) that his usually quiet wife was pacing the room, exclaiming, not "Eureka," but something very much to the same effect: "I've found out how to do it;" and then she added: "Get up directly, William, I've made your fortune."

Mr. WATTS was now thoroughly awake, and Mrs. WATTS related her "vision of the night."

She had dreamed (or rather thought in her sleep) that, if the drops of molten lead were allowed to fall through the air from a considerable height, so as to get thoroughly hardened before they reached the water, their perfect spherical forms would not be damaged by the sudden contact therewith. The next morning Mr. and Mrs. WATTS, in great secrecy, tried the experiment. Opposite their house was a lofty old church tower—that of St. Mary Redcliffe—and this tower was selected as the scene of operations. The sexton was a neighbor. From him the key was borrowed, and by eight o'clock Mr. WATTS was there with a charcoal brazier, some lead, a bucket of water, and the shot card (or mold) as the implement was called, through which the melted lead was poured or strained to form drops. You may be sure they locked themselves in. The staircase of the tower was circular, so that a "well" was formed from the top to the bottom—just the thing required. At the summit Mr. WATTS fixed his "card," while at the bottom Mrs. WATTS stood beside the pail of water, on the added contents of which, before long, so much might depend.

All was at length ready, and down dropped the molten shower of glistening globules of metal. Hissing and spattering they fell into the water, until all the lead above was used, and then, with eager haste, Mrs. WATTS plunged her hand into the now warm fluid, and drew some of the shot therefrom. Examining them eagerly she had the inexpressible delight of seeing that each and all were faultless—perfectly and entirely spherical. The problem was solved—the triumph achieved—and, as she said, she had made her husband's fortune.

Mr. WATTS speedily procured a patent, and "WATTS' Patent Shot" was patronized by King GEORGE the Third and his scapegrace son, the Prince of Wales. In fact, it speedily superceded all other sorts, and Mr. WATTS in a brief period realized an enormous fortune.—*Commercial Bulletin.*

## NAUTICAL INTELLIGENCE.

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1. IMPORTANT EXPERIMENT ON THE IRON-CLAD STEAMER PASSAIC. 2. CAPT. ERICSSON ON THE PASSAIC'S TURRET.

### IMPORTANT EXPERIMENT ON THE IRON-CLAD STEAMER PASSAIC.

A FIFTEEN-INCH GUN FIRED INSIDE THE TURRET—SUCCESS OF THE EXPERIMENT.

THE first actual trial-trip of the Passaic, the new iron-clad on the plan of the Monitor, lately launched at Greenpoint, took place November 17. The vessel had been from her dock before for the purpose of experimenting as to certain results which Capt. ERICSSON desired to accomplish. From these trips, which were not intended to try the speed or general capacities of the ship, many naval men predicted the conclusion that, in many important points, the vessel would not come up to the standard expected and required. Capt. ERICSSON, however, well understood the merits of his own inventions, and only awaited an appropriate opportunity not merely to convince them of their error, but rather to astonish them with a degree of success that the most sanguine had not anticipated. Not satisfied with building a vessel that is utterly impregnable, and placing on it a fifteen-inch gun—a gun never before used in naval warfare—he has now consummated an invention by which this gun is fired inside the turret, the muzzle not protruding outside the shield, without danger or inconvenience to those inside, and worked by only four men. It is also proved that the vessel will be able to attain a speed of at least nine knots an hour.

All the navy men were incredulous that a gun twenty-one tons in weight could be fired inside a turret twenty-one feet in diameter without having its muzzle protrude through the port-hole. Alone among the faithless, with only one engineer to join him, was Mr. ERICSSON.

At 10 o'clock the Passaic was reported ready. She had come from Greenpoint to have her boilers cleansed—divested of the filthy coating which builders deem indispensable—and the job being done, her steam began to rise. A large number of scientific officers—men who could never see anything until everybody could see it—congregated at the iron works. The wharf was crowded. The privilege to witness the great experiment—that which is to revolutionize naval warfare—was granted to a chosen few. Among them were the following:

Admiral GREGORY, general superintendent of iron-clads.

Chief-Engineer STIMERS (the only believer in the great idea).

Chief-Engineers LAWTON and ROBIE.

Captain Drayton, who commands the Passaic, and whose brother, the rebel Gen. Drayton, got some iron messages from him at Port Royal.

The vessel left the wharf at the foot of Thirteenth street, between ten and eleven o'clock in the morning and steamed up the North river

against a strong ebb tide and a heavy northerly wind. Her speed, from the start, averaged over seven knots through the water, and her screw making only fifty-eight turns, which is twenty-two less than she has the power to give. But, the boilers foaming, it was not deemed advisable to drive her to her maximum speed, the trial being more for the gun than the vessel.

Passing down the bay and up the river, the vessel was the observed of all observers.

Arrived at the Palisades, opposite Fort Washington, the vessel was headed in toward the western shore and preparation was made for firing the great gun. The cap missed. This gave confirmation to the incredulous ones. Another cap missed. It was just as they said, they exclaimed; it could not be done. A third cap failing to touch the powder, they became sure that the gun was a failure. But suddenly the firing of the gun checked further remark. The ball struck about 300 yards from the vessel in the water, glanced off, and struck the rocks, causing them to fly like so much chaff, followed by a terrible echo, which, in its force, resembled the explosion of a powder mill. The noise outside of the turret was terrible while inside there was no concussion of any account, and the noise certainly did not exceed that which would have been produced by the firing of an ordinary pistol. Every one was surprised and unwilling at the first trial to say much; all were anxious to see the effect of a full service charge of thirty-five pounds of powder. The gun only recoiled seventeen inches.

The very first fire, then, results in no smoke to speak of, no inconvenient concussion, and the complete success of a grand idea. The first charge consisted of 20 pounds of powder and a hollow shot, (330 pounds,) fired out of the 15-inch gun.

At the second shot the entire charge of 35 pounds of powder was put in. Captain DEAYTON pulled the trigger. Once more the echoes of the Palisades rang out. The recoil and smoke were reported "insignificant," and the shot—a hollow one—buried itself again in the beach. Cheers were loudly given for the Passaic.

The gun was fired twice again, the last time with solid shot, and gave fuller evidence of the success of Captain ERICSSON'S idea. The following is a recapitulation of the shots:

|                           | Ball weighed. | Charge of powder. | Recoil.       |
|---------------------------|---------------|-------------------|---------------|
| First shot (hollow).....  | 330 lbs.      | 20 lbs.           | .... 17 inch. |
| Second shot (hollow)..... | 330 "         | 35 "              | 3 ft. 10 "    |
| Third shot.....           | 330 "         | 35 "              | 2 " 8 "       |
| Fourth shot (solid).....  | .....         | 39 "              | 2 " 8 "       |

The traverse of the gun worked perfectly satisfactorily, and reflects great credit on Mr. ERICSSON'S inventive powers; but the ingenious contrivance for deadening the effects of the concussion within the tower, and obviating the necessity of a port hole adequate to the vast size of the gun, was not altogether successful. Mr. ERICSSON, however, feels confident that he has hit here, too, upon a principle which can be developed to all the results at which he has aimed; and, although the consequences of this first trial must entail some delay and revision, he has no doubt of final success.

The speed of the Monitors will be sufficient for the purposes for which they were designed. At no time will the guns of the vessel be liable to any damage from the projectiles of the enemy, for the muzzles will not protrude outside of their shield. The Armstrong guns in England have been condemned for use on shipboard, chiefly because a sufficient number of men could not be placed in the turret to work them. Twenty-five failed to do it satisfactorily, and the Armstrong gun weighs fourteen tons. Yesterday four men worked a 15-inch gun, which weighs twenty tons. Here is, of itself, a revolution in naval labor for which history furnishes no parallel. The Monitor's 11-inch gun, when worked with eight men, was deemed a miracle of metallic locomotion. Yet here is a gun, over 25,000 pounds heavier, worked by half the number of men.

The appliance to carry off the smoke is simple and ingenious. Another feature is the immobility of the Monitors in a heavy tide. Waves break on the iron margin of the craft, and splash in harmless foam about the deck. They have no hull to strike—no high bulwarks; even the turret presents an angle to angry Neptune at every side.

The *Passaic* returned late in the afternoon to the Delamater Iron Works, where the finishing touches will be put on her, and in a few days she will be turned over to the Navy Department, ready for active service.

The 11-inch gun was not fired on this trip, as it was not deemed necessary to use it while the question of the 15-inch would settle all the points required. The success of the experiment will now lead to the placing of two 15-inch guns in each turret. Thus armed, no iron-clad vessel yet built by any foreign power can withstand such a shock and crash as two such terrible projectiles would be able to make. Two guns of this large calibre can be as readily fired in the turret at one time as one; so that in striking, both guns being at the same elevation, the effect would be fearfully destructive.

We refrain from giving the details—for the benefit of our foreign friends or the rebels—of the invention by which the great results above explained are accomplished. The credit of it belongs exclusively to Captain ERICSSON, and the benefit of them to the United States.—*The World*.

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#### CAPT. ERICSSON ON THE PASSAIC'S TURRET.

The statements of the newspapers that the muzzle-box of the *Passaic's* turret "was shattered to pieces" during her recent trial trip, is replied to by Capt. ERICSSON as follows:

"With a view of determining certain theoretical points I requested Chief Engineer STIMERS to remove the muzzle-ring, a contrivance which modifies the pressure in a peculiar manner, but not until the trial had determined whether the concussion and smoke had been obviated. The success of the means adopted proved so complete that Mr. STIMERS, after the third round, deemed the point fully settled, and accordingly, with Admiral GREGORY's and Capt. DAYTON's acquiescence, removed the muzzle-ring. The effect was precisely as I had previously demonstrated: considerable increase of pressure within the muzzle-box, the effect being that some light bolts, which temporarily secured the front plate, were

broken and the plate bent forward a few inches. This, you will admit, is a very different affair from the box being shattered to pieces.

"Engineers will understand how trifling must be the internal pressure of the muzzle-box when informed that its front consists of a plate one-half inch thick, four feet wide and six feet long, without a single brace or support.

"The yielding of some light bolts before the muzzle-ring was removed, afforded practical data for estimating exactly the small amount of internal pressure.

"I refrain, for obvious reasons, from entering further into detail. I have much satisfaction in assuring you that our success is complete; not a single difficulty remains to be overcome. We handle the four hundred and twenty-pound guns with as little discomfort, and with more facility, than HULL and PERRY handled their forty-pounders.

"Yours most respectfully,

J. ERISSON."

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#### THE ATLANTIC TELEGRAPH.

Messrs. GLASS, ELLIOTT & Co., the Submarine Telegraph contractors, have written a letter to Mr. CYRUS W. FIELD, of which the following is an extract:

"In reply to your inquiries, we beg to state that we are perfectly confident that a good and durable submarine cable can be laid direct from Ireland to New Foundland, and are willing to undertake the contract upon the following conditions:

"First.—That we shall be paid each week our actual disbursements for labor and material.

"Second.—That when the cable is laid and in working order, we shall receive for our time, service, and profit 20 per cent on the actual cost of the line in shares of the Company, deliverable to us in twelve equal monthly instalments at the end of each successive month whereat the cable shall be found in working order.

"We are so confident that this enterprise can be successfully carried out, that we will make a cash subscription for a sum of £25,000 sterling, in the ordinary capital of the Company, and pay the call on the same when made by the Company."

Mr. VARLEY, the telegraphic engineer and electrician, writes as follows to Mr. CYRUS W. FIELD:—"It gives me much pleasure to be able to inform you that the recent experiments which I have made upon our submarine cables have led to improvements by which I have no doubt that we shall be able to telegraph through an Atlantic cable direct from Ireland to Newfoundland at the rate of certainly 12 or more, probably 16, words per minute, the copper conductor not being less than 5 cwt. to the nautical mile."



## COMMERCIAL REGULATIONS.

1. IMPORTANT DECISION RELATIVE TO STAMPS. 2. REVENUE STAMPS—WHEN MUST BE USED. 3. DECISION IN REFERENCE TO LIFE INSURANCE POLICIES. 4. TAX ON MANUFACTURES OF CLOTHING. 5. DIRECTIONS AS TO REMOVAL AND EXPORT OF PETROLEUM. 6. BILLS OF LADING. 7. TAX ON SAND PAPER. 8. TAX ON LEATHER. 9. TAX ON DIARIES. 10. TALLOW NOT SUBJECT TO TAXATION. 11. WHEN ARE MANUFACTURES REMOVED WITHIN THE MEANING OF THE LAW. 12. INTERNAL AND COASTWISE COMMERCIAL INTERCOURSE.

### IMPORTANT DECISION RELATIVE TO STAMPS.

THE PERSON WHO MAKES, SIGNS OR ISSUES AN INSTRUMENT IS THE ONLY PERSON WHO IS AUTHORIZED TO AFFIX A STAMP.

In the last number of the *Merchants' Magazine* (page 484,) we gave a decision of the Commissioner of Internal Revenue, to the effect that it will not do for the person receiving a check, &c., to affix and cancel a stamp. Below will be found another decision on the same point, only going further and explaining the question more fully.

*Treasury Department, Office of Internal Revenue, }  
Washington, Nov. 13, 1862. }*

SIR: In answer to yours of the 30th October I reply, that—

Section 94 of the Excise law requires "That on and after the first day of October, certain stamp duties shall be collected on all instruments, matters and things, as described in schedule marked B."

Section 95 provides, "That if any person or persons shall *make, sign or issue*, or cause to be made, signed or issued, any instrument, document or paper, of any kind or description whatsoever, without the same being duly stamped for denoting the duty imposed thereon, or without having thereupon an adhesive stamp to denote said duty, such person or persons shall incur a penalty of \$50, and such instrument, document or paper, shall be deemed invalid and of no effect."

It seems to me perfectly clear that, by the provisions of section 95, the person who *makes, signs and issues* the instrument, is the only person who is authorized to affix the stamp required by the law; and the person who *makes, signs and issues*, &c., without affixing the stamp, incurs the penalty as aforesaid, and is liable to prosecution therefor, and the instrument or document is invalid in consequence of such neglect.

Section 99 provides, "That the person *using or affixing* the stamp, shall write thereupon the initials of his name, date, &c.;" other portions of the law impose penalties upon persons who receive documents or articles subject to stamp duty, from the person who makes, signs and issues them without being duly stamped, &c.

I am, therefore, of the opinion, that a faithful compliance with the requirements of the provisions of the excise laws, demands—

1st. That all papers subject to stamp tax, shall have the stamp affixed before the same are issued.

2d. That the stamp so affixed must be cancelled in the manner prescribed by the party making, signing or issuing (in other words, executing) the instrument, document or paper.

Hence the receiving of an unstamped paper is a violation of the law. The attaching and cancelling of a stamp on a document so received is

also unlawful, and the cancellation of a stamp on a paper (otherwise lawfully issued) by other than the party executing the paper to which the stamp is affixed, is equally improper.

The only exception that exists in the law to the above ruling, is in the case of a Bill of Exchange or Order for the payment of any sum of money, drawn or purporting to be drawn, in any foreign country, but payable in the United States, in which case the acceptor or acceptors shall, before paying or accepting the same, place thereon a stamp, indicating the duty upon the same, as provided by Section 101 of the Excise Law.

Very respectfully yours,

GEO. S. BUTWELL, *Commissioner.*

TO GEO. W. KERR, Esq., *Pres. Bank of Newburg, Newburg, New York.*

It should be stated in this connection that the Commissioner of Internal Revenue has decided that parties using revenue stamps may cancel the same by *stamping* upon them their initials, with the date, instead of writing upon them as heretofore.

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#### REVENUE STAMPS—WHEN MUST BE USED.

*Treasury Department, Office of Internal Revenue, }  
Washington, Nov. 7, 1862.*

SIR: I have the honor to state that the Government now have increased facilities for supplying internal revenue stamps, and all orders now in this office, of the kinds already engraved, will be filled before the 15th instant.

Within a very short time plates for every denomination of the different kind of stamps will be finished, and all orders will be promptly supplied. When this can be done, an order will emanate from this Department, giving notice that after a certain day stamps must be used, or the penalty will be enforced. In the meantime the penalties for their non-use are operative, and will be enforced in all cases where stamps can be promptly furnished by the Government upon application.

Very respectfully yours,

C. F. ESTEE, *Acting Commissioner.*

TO J. D. VERMILYE, Esq., *Chairman of Committee of the New York Clearing-House Association, New York.*

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*Treasury Department, Office of Internal Revenue, }  
Washington, D. C., Nov. 17.*

The Commissioner of Internal Revenue is prepared to supply the following stamps in quantities sufficient for the use of the people of the District of Columbia and of the States east of the Rocky Mountains, viz: "Playing cards," "proprietary express," "telegraph," "insurance," "fire and marine," "passage tickets," and "protest." The use of the stamps herein specified is hereby required in the District and States above described, on and after the first day of December next, and persons guilty of willfully neglecting to use said stamps will be subject to the penalty provided in the law.

(Signed,)

GEORGE S. BUTWELL, *Commissioner.*

**DECISION IN REFERENCE TO LIFE INSURANCE POLICIES, ETC.**

The Commissioner of internal revenue has made the following decisions:

All life insurance policies are subject to stamp duty. Where the policy is conditional, that assured is to pay a certain sum annually or at other stated periods. Receipts for such payment are not subject to stamp duty. If the policy has expired by limitation, or by non-fulfilment of the conditions of the assured, the renewal or revival of the policy, in whatever form made, will be subject to stamp tax. Permits or agreements by which the terms of a policy are waived or changed in any respect, are subject to stamp as agreements.

**INTERNAL MANUFACTURES, &C.**

The following important decisions were made on the 15th of November, by acting commissioner C. F. ESTEE, Esq.

Manufacturers owning more than one mill, must take out a license for each of the mills when they are on separate and distinct premises, and they must take out a separate dealer's license for each shop, office, or store where they sell anything to anybody, or where they offer anything for sale, except in cases where they sell the entire manufactures upon the premises of the manufactory.

The three per cent. tax on manufactures must be paid in the district where the factory is situated. The fact that the company owning a factory in one district may own other factories in other districts, does not affect the question.

The tax must be paid when the goods are sold or removed to other than an agent. A commission house cannot be regarded as an agent.

The goods must pay tax upon their value in the market at the time they are sold or removed to other than an agent. Expenses of freight, commission, and sales should be deducted from the gross amount, and the tax should be laid on the net amount of sales when removed and sold from a place other than that where made.

The goods which were in process of manufacture on the 1st of September are liable for a tax on their whole value.

Gray goods purchased by the printer and on hand September, and previously, and converted into calico after that date, are liable for their whole value under a proviso of the 75th section of the tax law; goods converted into calico on which a tax has been paid, for being so converted shall pay a tax only on the increased value. But goods on hand on or prior to September 1st having paid no tax, cannot be exempted under this proviso, after being converted into calico.

Calico printers are liable to be taxed for articles of their manufacture when sold or removed; but I am aware of no provision of the law that renders them liable for articles consumed by them in process of manufacture, except those articles made by themselves.

Cigar manufacturers, and manufacturers of any kind of tobacco, must pay tax on any amount they may manufacture. They are excepted, together with producers of liquors, from the \$600 limit in the seventy-fifth section of the excise law, which prescribes that all manufacturers who may manufacture a less amount than \$600 worth of goods per annum, shall not be made to pay three per cent. upon the amount they manufacture.

## DECISION IN REFERENCE TO MARKET MEN AND OTHER DEALERS.

Generally the business of one who keeps a stall in the market is that of a retail dealer. There are exceptions however. The assistant assessor and assessor must judge in each case. If the dealer sells chiefly or entirely to consumers, though he may often sell in the original packages, he should be classed as a retail dealer. If, on the other hand, his sales are generally in the original packages, or if it is his occupation to sell to those who buy to sell again, or if this part of his business is considerable, so much that he depends upon and procures stock with reference to it, he shall be classed as a wholesale dealer, even though he sells at retail.

The law contemplates sales at retail by wholesale dealers.

A dealer who sells soap, candles, starch, tea, or other articles, by the original package, or salt by the wagon load, &c., &c., to consumers, is not a wholesale dealer under the law, but if he sells to those who sell again, he will be required to have a wholesale dealer's license. A furniture dealer who sells a bureau, sofa, or table to customers for their own use, whether in the package in which he received it or not, is not a wholesale dealer.

## DECISION IN REGARD TO IRON CASTINGS.

*First*—All castings which are so well known, and so generally used, as to have a commercial value, must be taxed as manufacturers when sold or removed.

*Second*—Other castings made upon special order of a machinist, but which are not known to the trade as manufactures in themselves, are exempt, not being manufacturers in contemplation of the law.

Where a person makes castings only, he must pay the tax thereon. If, however, he manufactures castings, and uses them himself in the manufacture of other articles, the tax can be assessed only on the last. The right to levy the tax depends upon the fact of sale, or removal for sale or consumption.

## TAX ON MANUFACTURES OF CLOTHING.

*Treasury Department, Office of Internal Revenue, }  
Washington City, D. C., November 8, 1862. }*

SIR: Yours of the 5th, inclosing a series of questions from manufacturers of clothing, together with opinions of attorneys, is received. In answer to the queries I have the honor to say—

1st. Persons who buy clothes and manufacture the same into garments are considered manufacturers within the meaning of the law.

2d. They will be required to pay duty upon the full value of the garments so manufactured. The fact that the manufacturer of the cloth has previously paid the required duty upon the cloth, does not authorize them to claim assessment upon the "increased value" only.

The clause of section 75 requiring certain articles to be assessed upon the increased value was not intended to embrace any manufacturers not enumerated therein.

In addition to this, the general principle running through the Excise Law is that each particular manufacture shall be taxed for its value,

even though the articles entering into such manufactures have been previously assessed and the duty paid. This is true of shoes made from taxed leather and of engines manufactured from iron, on which a duty has been previously paid. It is equally true of garments made from taxed cloth.

3d. The 3 per cent tax must be paid upon the selling price of the garments, and *not* upon the cost price.

4th. All clothing manufactured prior to, and not removed from the place of manufacturing before September 1st, is subject to tax.

5th. Persons who manufacture clothing under contract with the Government, must pay the duty the same as if selling to an individual.

6th. And upon the clothing manufactured for the Government they will be required to pay the tax upon the contract price and not upon the cost price or increased value of the cloth.

The clause of section 75, "providing that upon all cloths dyed, printed, bleached, manufactured into other fabrics or otherwise prepared, on which a duty or tax has been previously paid, the duty shall be assessed only upon the increased value thereof," evidently *does not* contemplate clothing manufactured from such cloth—it only comprehends the cloth itself remaining intact, and not cut to be made up into garments of any description.

7th. The persons referred to in the seventh question are manufacturers, if they furnish cloth to be made into garments and returned to them when finished.

Very respectfully,

C. F. ESTER, *Acting Commissioner.*

TO CHAS. R. FOSDICK, *M. S. Assessor, 1st District, Cincinnati, Ohio.*

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#### DIRECTIONS AS TO REMOVAL AND EXPORT OF PETROLEUM.

Commissioner BOUTWELL has made the following decisions respecting the removal and export of Petroleum.

The following decisions have been made by the Commissioner of Internal Revenue:—Refined coal oil may be removed for the purpose of being exported, after the quantity of oil so removed shall have been ascertained by inspection according to the provisions of the Excise law, upon, and with the written permission of the Collector (see blank No. 31) of the District, without payment of the tax thereon previous to such removal, the owner thereof having just given bonds (from No. 32) to the United States with sufficient surities in at least double the amount of said duty to export of said oil or pay the duties thereon within a period not exceeding ninety days from the date of said bond. This bond must be given by the owner of the oil whether distilled or otherwise, and must be executed to the satisfaction of the Collector before the oil is removed from the premises when distilled or manufactured. When a bond for export has been given and a permit granted, the oil may be exported from the specified port without the intervention of the Collector under the excise laws of each port.

1. Collectors may grant permits to producers of coal oil not refined, and known as distillate, to remove such distillate from the place of production for the purpose of refining the same elsewhere, upon condition that the producer or owner first give bonds to the satisfaction of the Collector of the

district where the same is produced, that the distillate shall be refined and the tax or duty thereon paid to the Collector of the district where the same shall be refined, provided however, that the oil, when refined may be bonded for exportation under the regulations relating to the exportation of coal oil.

2. It shall be the duty of Collectors and Deputy Collectors, before granting a permit for the removal of distillate, to cause the casks containing the same to be marked in such manner that they may be identified, and the permit shall contain an accurate description of such marks, and a copy of the permit shall be transmitted to the Collector of the district to which the distillate is to be removed.'

#### BILLS OF LADING.

*New York, October 3d, 1862.*

*Hon. GEO. S. BOUTWELL, Com. of Internal Revenue :*

DEAR SIR: By the Revenue Act of July 1st, 1862, a stamp duty of ten cents is imposed "on *Bills of Lading* from home ports to foreign ports." Such Bills are generally executed in duplicate or triplicate.

Is it the meaning and intent of the Act, that the stamp duty shall be paid upon *each Bill* in the set?

The interest of my clients, at whose instance I write, is very large in this matter, as is that of the entire body of shipping merchants of New York.

Your answer and decision will much oblige, respectfully, your obedient servant,

ALGERNON S. SULLIVAN, 29 Wall street.

*Treasury Department, Office of Internal Revenue, }  
Washington, October 9th, 1862. }*

SIR: Your letter of the 3d instant, relating to the stamp duty on "Bills of Lading," has been received.

In reply I would say that the meaning and intent of the stamp act is, that the stamp duty shall be paid upon *each bill* in the set. The validity of the bill depends upon the fact that it is stamped. If only one bill of lading is stamped, and that be lost, I do not see that the duplicate and triplicate bill would be of any value.

Very respectfully, GEO. S. BOUTWELL, *Commissioner.*

ALGERNON S. SULLIVAN, 29 Wall street, New York.

#### TAX ON SAND PAPER.

The Commissioner of Internal Revenue has announced two more decisions on the tax law, in reply to the following inquiries:

*Assessor's Office, First Collection District, New York, }  
Roslyn, Queens Co., Oct. 13, 1862. }*

*Hon. GEO. S. BOUTWELL, Commissioner of Internal Revenue :*

SIR: I desire your opinion on the two following points:

1st. A firm in my district manufactures sand paper. It is made of

three materials only, viz: paper, glue, and sand (the latter manufactured or prepared especially for that purpose), all of which three articles have already paid their *ad valorem* duty before they came to the hands of the sand paper manufacturer. Does the latter also pay the *ad valorem* duty on the sand paper when manufactured? It does not come under the description of those goods which, by the act, are to be taxed in certain cases only on their increased value, and I have, therefore, held that it (the sand paper) is to be taxed on its entire value.

2d. You have held that the building of ships, boats, and houses is not considered a manufacture within the meaning of the law. Where the contractor furnishes (actually sells) the materials from which the ship, boat or house is built, to the amount of \$1,000 per annum, is he not to be treated as a dealer? I refer particularly to that class of builders or contractors who do not keep any store, yard, or place from which they sell articles used in their trade, such articles as lumber, lime, lath, tin, stones, slate, etc., etc., as are required to complete their contracts.

Very respectfully, yours,

H. W. EASTMAN, *Assessor*.

*Treasury Department, Office of Internal Revenue, }  
October 16, 1862. }*

SIR: Your letter of the 13th instant, in regard to the tax upon sand paper, and the license of a contractor for the building of a house, who furnishes the materials himself, has been received.

You are correct in assessing sand paper on its entire value.

The furnishing of the materials for a house by the person who has the contract for the building of the same, does not constitute him a dealer.

Very respectfully, your obedient servant,

GEO. S. BOUTWELL, *Commissioner*.

To H. W. EASTMAN, Esq., *Assessor*.

#### TAX ON LEATHER.

*Philadelphia, October, 23, 1862.*

GEO. S. BOUTWELL, Esq., *Washington*:

DEAR SIR: Will you please take under consideration the following paragraph from Sec. 75 of the Internal Revenue Law, viz: "provided further, that in all oil dressed leather, etc., etc., on which a duty or tax shall have been paid before the same were so manufactured, the said duty or tax of three per cent shall be assessed only upon the increased valuation."

This, taken in connection with a previous part of the same section, which says, "on all finished or curried leather made from leather tanned in the interest of the parties finishing or currying such leather, not previously taxed in the rough, etc., etc., one cent per pound," leads to the belief that it is the intention of the law that the manufactured article shall not be taxed more than once unless it be enhanced in value by a further operation, and that such "increased valuation" only shall be subject to further tax; and to show the equity of such an interpretation, we would state that a large number of tanners sell their leather in the rough to curriers who finish it, being of itself a separate business, while others tan and finish or curry the leather themselves, and would pay but one

tax, while the former would subject the finished article to two taxes, according to your decision as published in a letter, dated October 21st, addressed to WASHINGTON KEITH, Esq., of this city.

Hoping that this subject will receive your attention and that you will be pleased to reply favorably.

We remain, very truly, etc.

I. PETERSON & Co.

To the above letter the Commissioner returned immediately the following reply :

*Treasury Department, Office of Internal Revenue, }  
Washington, October 25, 1862. }*

GENTLEMEN : In answer to your letter of the 23d instant, which has been received, allow me to say :

The Commissioner of Internal Revenue has, since writing the letter to WASHINGTON KEITH, to which you refer, given the question of leather more serious consideration, and has decided that, when rough leather tanned wholly or in part with oak, has once paid the tax of one cent per pound, as provided in section 75, no additional tax will be required on finished and curried upper leather made from the same.

Very respectfully,

C. F. ESTEE, *Acting Commissioner.*

*Messrs. I. PETERSON & Co., 809 N. Front St., Phila.*

#### TAX ON DIARIES.

Acting Commissioner of Internal Revenue, C. F. ESTEE, has addressed the following to a gentleman in the city of New York :

SIR : Your letter of November 4th, including a sample of diary manufactured by yourself, has been received. The commissioner has decided that blank books are a manufacture, and, as such, liable to a tax of three per cent *ad valorem*. The seventy-fifth section of the law exempts printed books, magazines, pamphlets, newspapers, reviews, and all other similar printed publications. Clearly diaries, such as you submit, are not embraced within the latter classes. On the contrary, they are in every sense a blank book, as much so as a note, cash, or other mercantile blank book with printed headings.

#### TALLOW NOT SUBJECT TO TAXATION.

The following important decision under the tax law has been announced :

*Treasury Department, Office of Internal Revenue, }  
November 6th, 1862. }*

GENTLEMEN : Your letter of November 4th has been received.

The Commissioner of Internal Revenue has decided that the rendering of tallow is not a manufacture ; and consequently tallow is not subject to any tax under the excise law.

Very respectfully,

C. F. ESTEE, *Acting Commissioner.*

J. C. HULL's SON, *New York.*



**WHEN ARE MANUFACTURES REMOVED WITHIN THE MEANING OF THE LAW ?***Cincinnati, October 29.*

SIR: On behalf of large manufacturing interests in this city, and in view of a difference of opinion among revenue officers, we beg leave to request a brief answer to the following questions:

1. Where a manufacturer has a room in the same city with his factory but at a considerable distance from it, (perhaps in another collection district,) where a portion of his manufactured stock is kept and exposed for sale, would such room be considered as a "place connected with the manufactory," and the manufactured articles stored therein on the 1st September as "not removed from the place of manufacture prior to that date," and so pay duty as if still in the factory?

2. If such a room be considered as "a place connected with the manufactory," and the goods liable to duty as "not removed from the place of manufacture," is a license required for the sale of such articles at that room, as at a place other than "the manufactory or place where the same are produced?"

Very respectfully, your obedient servants,

PROCTOR & GAMBLE.

Hon. GEO. S. BOUTWELL, *Com. of Int. Revenue, Washington.*

*Treasury Department, Office of Internal Revenue, }  
November 1, 1862. }*

GENTLEMEN: Yours of the 29th ultimo is received; I have the honor to answer your questions as follows:

1. Manufactures stored in a room not connected with the factory, or in a different collection district, are removed within the meaning of the law.

2. I have the honor to inclose the opinion of the solicitor of the Treasury as an authentic elucidation of the law concerning "removals," and as fully and clearly answering both paragraphs of your letter.

Very respectfully,

C. F. ESTEE, *Acting Commissioner.*

*Messrs. PROCTOR & GAMBLE, Cincinnati.*

**INTERNAL AND COASTWISE COMMERCIAL INTERCOURSE.**

The following regulations concerning Internal and Coastwise Commercial Intercourse, we were unable to find room to publish until the present time:

*Treasury Department, August 28, 1862.*

In pursuance of law, and by virtue of the authority conferred upon the Secretary of the Treasury by the act of Congress approved July 13, 1861, entitled "An act further to provide for the collection of duties on imports, and for other purposes," and an act supplementary thereto, approved May 20, 1862, and for the purpose of preventing the conveyance of arms, munitions of war, and other supplies, to persons in insurrection against the United States, the following regulations concerning commercial intercourse with insurrectionary States and sections, are prescribed.

S. P. CHASE, *Secretary of the Treasury.*

I. No goods, wares or merchandise, whatever may be the ostensible destination thereof, shall be transported to any place now under control of insurgents; nor to any place on the south side of the Potomac river; nor

to any place on the north side of the Potomac and south of the Washington and Annapolis Railroad; nor to any place on the eastern shore of the Chesapeake; nor to any place on the south side of the Ohio river below Wheeling, except Louisville; nor to any place on the west side of the Mississippi river below the mouth of the Des Moines, except St. Louis; without a permit of a duly authorised officer of the Treasury Department; and the special agents of this Department may temporarily extend these restrictions to such other places in their respective districts, and make such local rules to be observed therein as may from time to time become necessary, promptly reporting their action to the Secretary of the Treasury for his sanction or disapproval.

II. All transportation of coin or bullion to any state or section heretofore declared to be in insurrection, is absolutely prohibited except for military purposes and under military orders, or under the special license of the Secretary of the Treasury. And no payment of gold or silver shall be made for cotton or other merchandise within any such State or section, and all cotton or other merchandise purchased or paid for therein, directly or indirectly, in gold or silver, shall be forfeited to the United States.

III. No clearance or permit whatsoever will be granted for any shipment to any port, place or section affected by the existing blockade, except for military purposes, and upon the certificate and request of the Department of War or the Department of the Navy.

IV. All applications for permits to transport or trade under these regulations shall state the character and value of the merchandise to be transported, the consignee and destination thereof, with the route of transportation, and the number and description of packages, with the marks thereon.

V. Every applicant for such permits shall present with his application the original invoices of the goods, wares, and merchandise to be transported, and shall make and file with the officer granting the permit an affidavit that the quantities, descriptions, and values are correctly stated in said invoices, true copies of which shall be annexed to and filed with the affidavit, and that the packages contain nothing except as stated in the invoices: that the merchandise so permitted shall not, nor shall any part thereof, be disposed of by him, or by his authority, connivance or assent, in violation of the terms of the permit, and that neither the permit so granted nor the merchandise to be transported shall be so used or disposed of by him, or by his authority, connivance, or assent, as in any way to give aid, comfort, information, or encouragement to persons in insurrection against the United States. And furthermore, that the applicant is loyal to the Government of the United States, and will in all things so deport himself.

VI. No permit shall be granted to ship goods, wares, or merchandise to States, or parts of States, heretofore declared to be in insurrection, or to places under insurrectionary control, or occupied by the military forces of the United States, except to persons residing or doing business therein, whose loyalty and good faith shall be certified by an officer of the Government or other person duly authorised to make such certificate, or by a duly appointed Board of Trade therein, by whose approval and permission only the same shall be unladed or disposed of. And no permit shall be granted to ship merchandise from any such State, or part of State, in violation of any order restricting shipments therefrom, made for military purposes by the commandant of the Department from which said shipment is to be made.

VII. Collectors or Surveyors of Customs, before granting clearances or

permits, may require a bond, with reasonable surety, in such cases as they shall think necessary to protect the public interests, conditional, that there shall be no violation of the terms or spirit of the clearance or permit, or of the averments of the affidavit upon which the same is granted.

VIII. No permit shall be granted to ship intoxicating drinks or other things prohibited by the military authorities into territory occupied by the military forces of the United States, except upon the written request of the commandant of the department in which such territory is embraced, or some person duly authorised by him to make such request.

IX. In order to defray the expenses under these regulations, a fee of twenty cents will be charged for each permit granted; and shipments permitted to and from States heretofore declared to be in insurrection, shall, in addition thereto, be charged with the following fees, viz.: Five cents on each one hundred dollars over three hundred dollars on all shipments to such States or sections; fifty cents on each one thousand pounds of cotton, and twenty-five cents on each one thousand pounds of sugar permitted from such State.

X. No vessel, boat or vehicle used for transportation upon or south of the Potomac river, or north of the Potomac and south of the Washington and Annapolis Railroad, or to the eastern shore of the Chesapeake, or southwardly on or from the Ohio river below Wheeling, or westwardly or southwardly on or from the Mississippi river, below the mouth of the Des Moines, shall receive on board any goods, wares or merchandise destined to any place commercial intercourse with which now is or hereafter may be restricted as aforesaid, unless the same be accompanied by a permit of a duly authorised officer of the Treasury Department, except as in hereafter provided in regulation Number XIV.

XI. No vessel, boat, or other vehicle used for transportation from Eastern cities or elsewhere in the loyal States, shall carry goods, wares or merchandise into any place, section, or State restricted as aforesaid, without the permit of the duly authorised officer of the customs, application for which may be made to such authorised officer near the point of destination as may suit the convenience of the shipper.

XII. No vessel, boat or other vehicle used for transportation shall put off any goods, wares, or merchandise at any place other than that named in the permit as the place of destination.

XIII. Before any boat or vessel running on any of the Western waters south of Louisville or St. Louis, or other waters within or adjacent to any State or section, commercial intercourse with which now is or may hereafter be restricted as aforesaid, shall depart from any port where there is a Collector or Surveyor of Customs, there shall be exhibited to the Collector or Surveyor, or such other officer as may be authorised to act in his stead, a true manifest of its entire cargo and a clearance obtained to proceed on its voyage; and when freights are receivable on board at a place where there is no Collector or Surveyor, as hereinafter provided in Regulation XIV., then the same exhibit shall be made and clearance obtained at the first port to be passed where there is such an officer, and such vessel or boat shall be reported and the manifest of its cargo exhibited to the Collector or Surveyor of every port to be passed on the trip where there is such an officer; but no new clearance shall be necessary unless additional freights shall have been taken on board after the last clearance. Immediately on arriving at the port of final destination, and before discharging any part of its cargo, the manifest shall be exhibited to the Surveyor of such port, or other officer authorized to act

in his stead, whose approval for landing the cargo shall be indorsed on the manifest before any part thereof shall be discharged; and the clearance and shipping permits of all such vessels and boats shall be exhibited to the officer in command of any naval vessel or military post whenever such officer may require it.

XIV. To facilitate trade and guard against improper transportation, "aids to the revenue" will be appointed from time to time on cars, vessels, and boats, when desired by owners, agents, or masters thereof, which aids will have free carriage on the respective cars, vessels and boats on which they are placed, and will allow proper weigh freights to be taken on board without permit, keeping a statement thereof, and reporting the same to the Collector or Surveyor of the first port to be passed on the trip where there is such an officer, from whom a permit therefor must be obtained, or the goods returned under his direction. No permit will be granted for transportation into any insurrectionary State or district, except in cars, vessels and boats carrying such aids.

XV. All vessels, boats and other vehicles used for transportation, violating any of the above regulations, and all goods, wares and merchandise shipped and transported in violation thereof, will be forfeited to the United States. If any false statement be made, or deception practised in obtaining a permit, such permit, and all others connected therewith or affected thereby, will be absolutely void, and all merchandise shipped thereupon shall be forfeited to the United States. In all cases of forfeiture as aforesaid, immediate seizure will be made and proceedings instituted, promptly for condemnation. The attention of all officers of the Government, common carriers and shippers, consignees, owners, masters, agents, drivers, and other persons connected with the transportation of merchandise, or trading therein, is particularly directed to the acts of July 13, 1861, and May 20, 1862, above referred to.

XVI. All army supplies transported under military orders are excepted from the above regulations. But this exception does not extend to sutlers' goods or others designated for sale at military posts or camps.

XVII. When any officer of the Customs shall find in his district any goods, wares, or merchandise which, in his opinion are in danger of being transported to insurgents, he may, if he thinks it expedient, require the owners or holders thereof to give reasonable security that they shall not be transported to any place under insurrectionary control, and shall not in any way be used to give aid or encouragement to the insurgents. If the required security be not given, such officer shall promptly state the facts to the United States Marshal for the district within which such goods are situated, or, if beyond the jurisdiction of a United States Marshal, then to the commandant of the nearest military post, whose duty it shall be to take possession thereof, and hold them for safe keeping, reporting the facts promptly to the Secretary of the Treasury, and awaiting instructions,

XVIII. Where ports heretofore blockaded are opened by the proclamation of the President, licenses will be granted by United States Consuls, on application by the proper parties, to vessels clearing from foreign ports to the ports so opened, upon satisfactory evidence that the vessels so licensed will convey no person, property or information contraband of war, either to or from said ports, which license must be shown to the Collector of the port to which the vessel is bound, and, if required, to any officer in charge of the blockade. And on leaving any port so opened, the vessel must have a clearance from the Collector, according to law, showing no

violation of the condition of the license. Any violation of the conditions will involve the forfeiture and condemnation of the vessel and cargo, and the exclusion of all parties concerned from entering the United States for any purpose during the war.

*War Department, August 28, 1862.*

The attention of officers and others connected with the army of the United States is called to the regulations of the Secretary of the Treasury concerning commercial intercourse with insurrectionary States or sections, dated August 28, 1862.

I. Commandants of departments, districts and posts will render all such military aid as may become necessary in carrying out the provisions of said regulations, and enforcing observance thereof to the extent directed by the Secretary of the Treasury, so far as can possibly be done without danger to the operations or safety of their respective commands.

II. There will be no interference with trade or shipments of cotton or other merchandise conducted in pursuance of said regulations within any territory occupied and controlled by the forces of the United States, unless absolutely necessary to the successful execution of military plans or movements therein. But in cases of the violation of the conditions of any clearance or permit granted under said regulations, and in cases of unlawful traffic the guilty party or parties will be arrested, and the facts promptly reported to the commandant of the Department for orders.

III. No officer of the army or other person connected therewith, will seize cotton or other property of individuals, unless exposed to destruction by the enemy, or needed for military purposes, or confiscation under the act of Congress, and in all such cases of seizure the same shall be promptly reported to the Commandant of the Department wherein they are made, for his orders therein.

*EDWIN M. STANTON, Secretary of War.*

*Navy Department, Aug. 28.*

The attention of naval officers is called to the regulations of the Secretary of the Treasury concerning commercial intercourse with insurrectionary States or sections, dated Aug. 28, 1862.

I. Commanders of naval vessels will render such aid as may be necessary in carrying out the provisions of said regulations, and enforcing observance thereof to the extent directed by the Secretary of the Treasury, so far as can possibly be done without danger to the operations or safety of their respective commands.

II. There will be no interference with trade in or shipments of cotton or other merchandise, conducted in pursuance of said regulations, within any of the waters controlled by the naval forces of the United States, unless absolutely necessary to the successful execution of military or naval plans or movements. But in case of the violation of the conditions of any clearance or permit granted under said regulations, and in cases of unlawful traffic, the guilty party or parties will be arrested and the facts promptly reported.

III. No officer of the navy will seize cotton or other property of individuals within the territory opened to traffic and subject to the regulations of the Secretary of the Treasury, unless the same is exposed to destruction by the enemy, or needed for naval purposes and in all such cases the fact, with all attendant circumstances, shall be promptly reported to the department.

*GIDEON WELLES, Secretary.*

## MERCANTILE MISCELLANIES.

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### 1. GOVERNMENT POSTAGE STAMPED ENVELOPES. 2. COUNTERFEITING ON A LARGE SCALE.

#### GOVERNMENT POSTAGE STAMPED ENVELOPES.

THROUGH the Post Office Department we learn that postage stamped envelopes were first introduced in this country in the year 1853, and although offered at a price far below that of the ordinary envelopes of the trade, they do not as yet seem justly appreciated by the public.

There has been but slight variation in the number of stamped envelopes issued annually. In 1854 it amounted to \$26,138,600; in 1856 to \$43,755,150; in 1858 to \$30,734,275; in 1861 to \$26,027,300—the latter being less than fifteen per cent of the issue of separate postage stamps, which increased from 55,000,000 in 1854 to 211,000,000 in 1861.

The greater cheapness of government envelopes as compared with those of the trade is generally overlooked, because the purchaser of the former is requested to pay the additional charge of postage.

One hundred stamped envelopes are sold for *three dollars and eighteen cents*, while the same number of *plain* ones, of similar quality, may be procured for about *forty cents*, but to this sum must be added three dollars, the value of the postage stamps, which must be affixed to such envelopes before they can be used in the mails; thus making one hundred letters cost \$3.40, or *twenty-two cents* more than if covered by government envelopes.

Hence it appears that persons who make use of unstamped envelopes pay for them about one hundred per cent more than if they employed stamped envelopes.

The number of separate postage stamps issued during the year ending June 30, 1861, was, as above stated, upwards of *two hundred millions*.

Assuming that a like number of unstamped envelopes were used for letters at *thirty-six cents* per hundred, which is a very low estimate, the cost thereof would have been \$72,000, whereas government envelopes would have cost the consumer only \$36,000.

Hence a sum equal to the difference of these amounts, namely, \$36,000, may be considered as actually lost to the public, which is owing in a great degree to the want of proper application of the advantage of the stamped envelope.

Objection is not unfrequently made to the government envelope on account of either its form, size, or quality, or because of the danger of losing both the envelope and postage stamp thereon, should it be misdirected or otherwise accidentally defaced. Such objection the Postmaster General has determined, if possible, to remove, and to this end he proposes to arrange for embossing, under proper restrictions, the postage stamp on any envelopes that may be offered for that purpose by stationers, bankers, merchants, or other business men. Such parties will thus be enabled to procure stamped envelopes of form and quality adapted to their own tastes, which are now so varied that they cannot be anticipated by the post office department.

It is also believed that stationers will be induced to provide themselves with varieties of stamped envelopes suited to the wants of their customers, making such envelopes, equally with the ordinary unstamped article, a regular portion of stock in trade.

It is deemed expedient, however, as a precaution against fraud, that no one be permitted to enter into such trade without having first obtained from the Postmaster General a regular license for that purpose, and that all private parties desiring to have their own envelopes stamped must be satisfactorily shown to be of good standing, and be required to have their names printed on the envelopes. They will then, on payment of the postage, obtain a permit to have the work done by the government contractor for stamped envelopes, at New York.

The Postmaster General considers the use of the stamped envelope more advantageous to the department than that of separate stamps, as the address of the former prevents them from being used a *second* time, while the *latter* may be so used if postmasters neglect the duty of canceling them. To the public also they afford advantages in addition to those arising from cheapness, because they are more convenient, saving the trouble and delay of attaching separate stamps, which are liable to be removed, causing letters to be detained for postage.

The objection to stamped envelopes that the postage is lost in case of misdirection, may be removed by allowing postmasters, under certain rules prescribed by the Postmaster General, to redeem damaged envelopes.

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#### COUNTERFEITING ON A LARGE SCALE.

The greatest haul of counterfeiting apparatus recorded for years, was made within the past month. The Deputy U. S. Marshal of Philadelphia, with the Chief of the Detective Police of Philadelphia, succeeded in arresting a man named GEORGE WHITE, fifty years of age, whose place of residence is 233 Atlantic avenue, Brooklyn, and whose place of business is 88 Cedar street, New York, under the assumed name of T. H. BENTLEY & Co. WHITE was formerly employed by the American Bank Note Company. All the paraphernalia of the counterfeiting business was secured. The finished "plates" and "vignettes," as also those undergoing the process of completion, betray a master-workman.

The following finished plates of the following banks are secured:—

Commercial Bank, Glens Falls, N. Y. "Five's."

Bank of Orange County, N. Y. "Five's."

Pocasset Bank, Fall River, R. I. "Two's."

Liberty Bank, Providence, R. I. "Two's."

Waterbury Bank, Conn. "Five's" and "Ten's."

Farmers' Bank, Reading, Pa. "One's."

Cuyler's Bank, Palmyra, N. Y. "Five's."

Manufacturer's Bank, Troy, N. Y. "Five's."

Both of WHITE's establishments were broken up. The prisoner was handed over to Deputy Superintendent FOLK, of Brooklyn.

## UNITED STATES GOVERNMENT MAKING MONEY IN A NEW WAY.

We have heard of minors making contracts and subsequently pleading the baby act, we have also known men to set up the statute of limitations to an honest debt, and sometimes have seen the defence of usury put in and the defendant allowed to creep through that small hole and avoid paying what he owes, but we never imagined that a free, enlightened, liberal government could be caught trying to evade its debts by any such small tricks. The following decision, however, looks as if our statesmen were engaged in the same style of business and had assumed the character of very sharp, illiberal, *unprofessional* lawyers, determined to take advantage of every legal quibble—getting all they can and keeping all they get. We are pleased to see that our courts do not consider such transactions honest yet. The decision we refer to was the one in the United States Court of *WILSON G. HUNT & Co. vs. AUGUSTUS SCHELL*.

The plaintiffs imported merchandise into this port on which they paid, July 7, 1857, the duties exacted by the Collector, amounting to \$352 08. The merchandise was not forthwith withdrawn, and, on the 30th day of the same month, the plaintiffs, by error of one of their clerks, paid the same amount of duty a second time on the same merchandise. The warehouse books exhibited, on the date of the last payment (July 30, 1857), the fact that full duties had already been paid on the goods but by carelessness of officers it was not observed. It was not till August 9th, 1858, that the plaintiffs detected the double payment. They made immediate application to the Collector to refund the amount paid in excess, and were met with the reply that more than a year having elapsed since overpayment was made, it could not be refunded. Thereupon the plaintiffs addressed the following letter to the Secretary of the Treasury, which was read in the case:—

*New York, Aug. 14th, 1858.*

*Hon HOWELL COBB, Secretary of the Treasury, Washington :*

SIR: We beg leave to call your attention to the enclosed affidavit, setting forth an error on our part, by paying duty twice on an invoice per the "Jeremiah Thompson," in July, 1857.

We did not discover the error till a few days since, when we made immediate application to the Auditor of our custom-house for redress. He informed us that the fiscal year being closed, it was necessary for us to make our application to the Secretary of the Treasury to have this error corrected.

We solicit from you such instructions as will place this matter right between ourselves and the government.

Your Ob't Serv'ts,

WILSON G. HUNT & Co.

In reply to a second letter of the same tenor, the following was received:

*Treasury Department, October 4th, 1858.*

SIR: In reply to your letter of 27th ultimo, in relation to return of duty alleged to have been twice paid, you are informed that the regula-



tions, requiring applications of this class to be made within a specific time, not having been complied with, no relief can be granted.

I am, respectfully,

HOWELL COBB, *Secretary of the Treasury.*

WILSON G. HUNT, Esq., *New York.*

Subsequently, under date of July 19, 1861, the plaintiffs made the same application to Secretary CHASE as they had to Secretary COBB, and, after the long delay of nearly two months, received a reply similar to the one made by Secretary COBB. Finding that it was useless to appeal to the Treasury Department, the plaintiffs (more to see if such decision of the Department would be sustained in a court of justice than to recover the amount paid in excess,) brought suit in the Circuit Court against Collector SCHELL, for money illegally exacted under color of his office.

On the trial there was no denial of the facts proved by the plaintiffs. The District Attorney, in defence, read article No. 976 of General Treasury Regulations, which provides that errors in computation of duties settled can only be corrected with sanction of the Department, and which also provides that "when the correction of such error is claimed without proof of protest, as required in all other claims for return of excess of duty paid, such claim cannot be entertained and considered by the Department unless it appear by the certified statement of the Collector that it has been presented to the Collector *within one year* from the time of payment of the duties alleged to have been exacted in error." He claimed that the presentation of the claim in this case was not within the year. He also called attention of the Court to the fact that no protest was filed by the plaintiffs, and suggested that, under existing acts of Congress, no suit could be maintained in this Court against a Collector to enforce recovery of money illegally exacted and paid as and for duty, unless a protest in writing was fixed by the importer at time of payment. He read and commented on the statute, which he said, however harsh it might be, was nevertheless a bar to any legal proceedings to recover back money paid as this was.

Judge NELSON thereupon charged the jury, in substance, that the facts in the case were not in dispute, and that upon the law he thought the plaintiffs ought to recover. There was strange carelessness at the Custom-house in exacting the duty a second time, and the plaintiffs had paid the money in ignorance that they had paid the amount before. The money last paid did not belong to the collector or to the government, but to the plaintiffs. *It was unaccountable to him how the government could seriously put up the one year regulation as a bar to payment. It was not honest. It was dishonest. If a man in ordinary transactions of business were thus to withhold money, he would be dishonest, and called so, and be brought into Court and compelled to pay it back.* In his opinion, the statute should not be construed to prevent collectors being brought in in the same way, and compelled to pay back money exacted under circumstances like those proven in this case.

The jury thereupon found a verdict for the plaintiffs for amount of claim and interest.

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